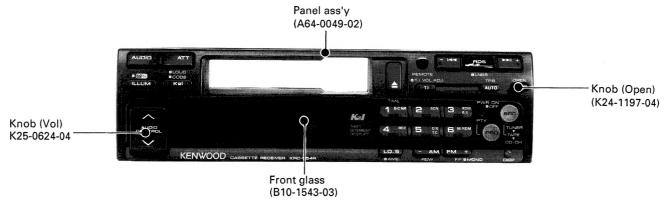
RDS EON CD-CH CONTROL CASSETTE RECEIVER

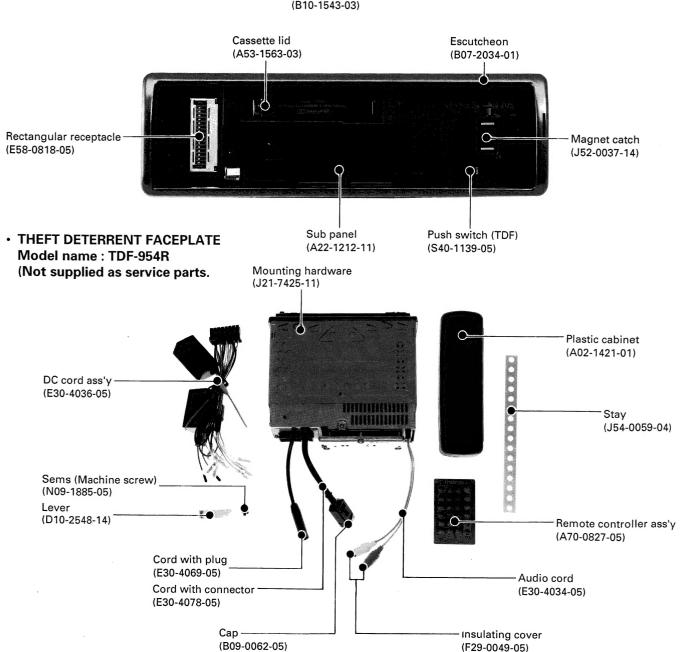
KRC-954R

SERVICE MANUAL

KENWOOD

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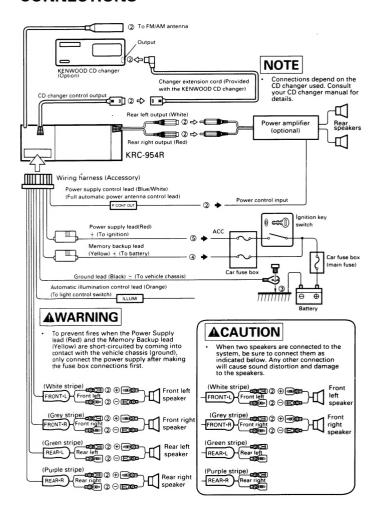


CONTENTS/CONNECTIONS

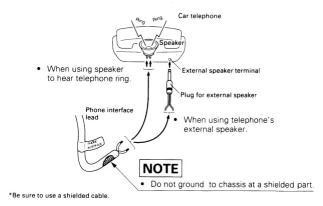
CO	N	TI	Ξľ	Ŋ.	TS

8. IC16: M38067M8D094FP (X14-50	02-71)
System microcomputer	23
9. IC1: LC7218M (X14-5002-71) PLL	26
MECHANISM OPERATION DESCRIPTIO	N27
ADJUSTMENT	34, 36
ABGLEICH	35
PC BOARD	37
SCHEMATIC DIAGRAM	43
EXPLODED VIEW (MECHANISM)	55
(UNIT)	56
(FACEPLATE)	57
PARTS LIST	
SPECIFICATIONSBA	ACK COVER

CONNECTIONS

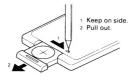


■ Example of telephone interface connection



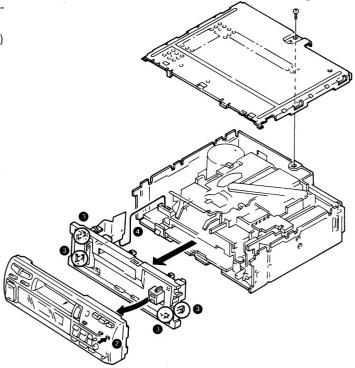
Replacing battery of remote control unit

- The battery life is approximately a half year. When the life has expired, plaese replace the battery with a new battery.
- The remote control unit uses a lithium battery (CR2025).
- Insert battery following the illustration inside the battery box, taking care not to reverse the ⊕ and ⊝ polarity.

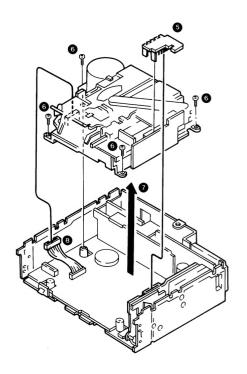


DISASSEMBLY FOR REPAIR

- 1. Remove the screw (1) and remove the top panel.
- 2. Press the OPEN button (2) and remove the control unit.
- 3. Remove the sub panel by pushing the 4 claws (3) open, and remove the flexible wire (4).

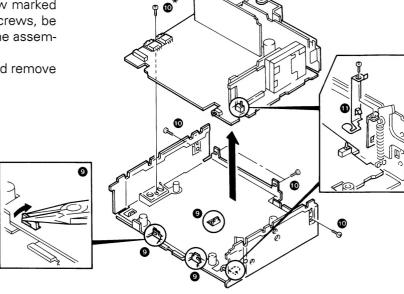


- 1. Unplug the board connector (6).
- 2. Remove the 4 screws (6), move the cassette mechanism upward to make a space below it (7), and unplug the connector (8).

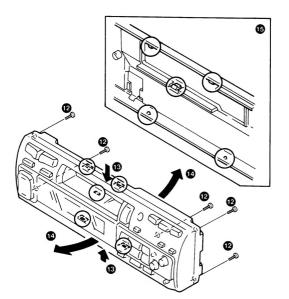


DISASSEMBLY FOR REPAIR

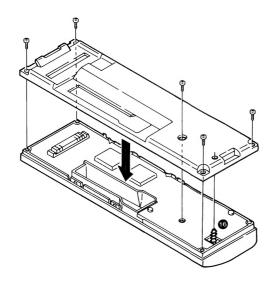
- 1. Straighten the 3 claws (**9**) on the chassis using a pair of pliers, etc.
- 2. Remove the 5 screws (①). As the screw marked (①) * is of a different type from other screws, be careful to use it in the same position at the assembly.
- 3. Remove the lever and the screw (10), and remove the board unit.



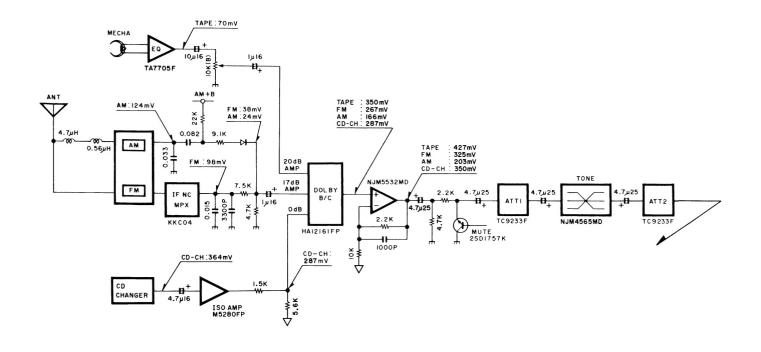
- 1. Remove the 5 screws (12).
- While pushing the upper and lower sections (13) of the front case, open the lower section (12).
 *Be save to engage the 5 claws (13) securely.

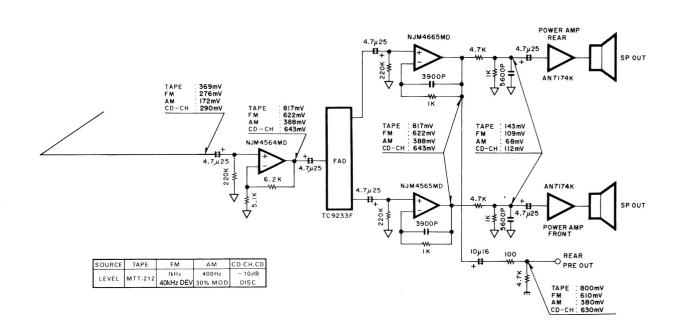


1. When assembling the rear case, fit the spring (16) into the hole on the case and attach the 5 screws.



BLOCK DIAGRAM





CIRCUIT DESCRIPTION

1. Description of Component

1-1. Audio Unit (X09-5042-71)

Ref No.	Name	Use and function	Description
IC1	TA7705F	Tape EQ amp	Playback equalize, head amplifier.
IC2	HA12161FP	Dolby B.C	Dolby B/C type decoder, source switching.
IC3	M5280FP	Isolation amp	Isolation amplifier for CD-CH.
IC4	NJM4565MD	1/2 Vcc buff	
IC11	TC9233FK	E-VOL	Sound volume, loudness, tone control, fader balance, attenuator.
IC12~16	NJM4565MD	Tone and buff amp	Tone control, VOL2 and FAD input buffer.
IC17, 18	NJM4565MD	Pre amp	IC17 : Rear preamplifier. IC18 : Front preamplifier.
Q1, 2	2SD1757K	EQ mute	Muting of EQ amplifier output.
Q11, 12	2SD1757K	mute	

1-2. Synthesizer Unit (X14-5002-71)

Ref No.	Semi. name	Use and function	Operation
IC1	LC7218M	PLL IC	PLL for FM/AM tuner.
IC2	TC4W66F	Analog IC	Switches LPF time constant during FM seek.
IC3	NJM4565MD	Buff	Buffer between Dolby IC and E. Volume IC.
IC4	NJM4565MD	T.ADV amp	
IC5	SAA6579T	RDS Demodulator IC	
IC6	LC6543H-4600	RDS sync μ-COM	
IC7		Code/security data memory	
IC8	TA7291P	Sub-motor drive IC	
IC9	LC3564QM-10	S-RAM	RAM for RDS data such as AF list.
IC10	TC74HC573AF	Latch	Latch between IC9 and IC16.
IC11	M5237ML	3-terminal-IC	For 8 V AVR.
IC12	PST572FMT	Reset IC	Lo when the supply voltage of IC16 drops below 4V.
IC13	AN7174K	Power amp	Front power amplifier.
IC14	AN7174K	Power amp	Rear power amplifier.
IC15	SN74HC367ANS	Inverter	For CD-CH data.
IC16	M38067M8D094FP	Master μ-COM	
IC17	75004GB-864-3B4	Mechanism μ-COM	
IC51	KKC04	IF/NC/MPX	IF/NC/MPX for K2I.
IC52	TA75S393F	Comparator	During K2I operation, switches the adjacent interference detection
			sensitivity by detecting over-modulation.
Q1	2SC2412K	BU detect	
Q2	2SC2412K	Acc detect	
Q3, 4	2SC2413K	IF amp	Q3: IF amplifier for Wide. Q4: IF amplifier for Narrow.
Q5	XDA124EK	LW/MW SW	
Q6	XDC124EK	Lo/Dx SW	
Ω7	DTA144EK		
Q8	2SA1428	FM+B SW	
Ω9	2SA1428	AM+B SW	
Q10	2SK536	Vt LPF	For AM.
Q12	XDC144EK	IC 2 control	
Q13	2SA1037K		
Q14	2SK536	FM Vt LPF	
Q15	2SC2412K	CRSC SW	
Q16	2SC2412K	CRSC drive	
Q17	2SC2412K	S-meter buff	
Q18	2SA1037K	S-meter drive	
Q19	2SC2412K	AM SD SW	
Q20	XDC144EK	FM mute SW	
Q21	DTA144EK	Narrow SW	In test mode.
Q22	XDC144EK	K2I/wide SW	

CIRCUIT DESCRIPTION

Ref No.	Semi. name	Use and function	Operation
Q23	XDC144EK	T.ADV circuit gain SW	Switches the gain for playback and fast winding.
Q24	XDC144EK	T.ADV circuit time constant SW	Switches the time constant for playback and fast winding.
Q25	XDA124EK	EQ mute inverter	
Q26	2SC2412K	T.ADV circuit inverter	
Q27	DTC144EK	MONO/ST SW	
Q28	DTB123YK	+B SW for sync μ-COM	
Q29	2SC2412K	AVR SW for sub motor	For IC8.
Q30	2SA1408 (O)	AVR drive for sub motor	For IC8.
Q31	XDC124EK	KICK SW	For IC8.
Q32	XDC124EK	S-RAM CE1 control	Inhibits read from or write to S-RAM while power is OFF.
Q33	2SB1370F8	8V AVR SW	Audio circuitry.
Q34	DTA114EK	8V AVR drive	Audio circuitry.
Q35	2SB1370F8	ILLUM AVR SW	
Q36	2SC2412K	ILLUM AVR drive	
Q37	DTA114EK	ILLUM AVR control	
Q38	XDC144EK	ILLUM AVR control	
Q39	2SB1370F8	5V AVR SW	Logic circuitry of μ-COM, etc.
Q40	2SC2412K	5V AVR control	Logic circuitry of μ-COM, etc.
Q41	DTB123YK	Power on 5V SW	239.5 Should for A Solling State
Q42	XDC144EK	Power on 5V drive	For the moment the power is switched ON.
Q43	2SA1036K	Remove 5V SW	To the moneta to perfor to emicros on.
Q44	2SC2412K	Remove 5V drive	
Q48	DTA144EK	PWR amp STBY SW	Controlled by P.CON.
Q49	XDC144EK	PWR amp STBY SW	Controlled by P.CON.
Q50	2SC2412K	PWR amp STBY SW	Controlled by Acc detection or BU detection.
Q51	XDC144EK	Small in inverter	Controlled by Acc detection of Bo detection.
Q52, 54	XDA124EK	TA/RA/CH SW	
Q53, 55	XDA124EK	off/B/C SW	
Q56	XDC124EK	PWR on 5V SW	Controls IC15.
Q57	XDC124EK	DSI indicator INH.	Inhibits DSI indicator while the panel is attached.
Q58	2SC2412K	DSI indicator NVI.	Timbles DSI fridicator write the parier is attached.
Q59	2SA1037K	Mute drive	
Q60	XDC124EK	Mute drive	
Q61	XDA124EK	Mute drive	
Q62	2SA1428	Motor +B SW	
Q63			
Q64, 65	DTC114EK 2SC2412K	Motor +B drive	
Q66	-	Reel pulse buff	
Q67	2SA1428	Amver +B SW	
	2SA1428	Green +B SW	
Q68	DTD123YK	Dimmer SW	Forth and the CMAN I is a
Q69	DTD123YK	Green dimmer SW	For the case in which SMALL is input.
Q70	XDC144EK	Amver +B drive	
Q71	XDC144EK	Green +B drive	
Q72	DTA144EK	Green dimmer drive	
Q73	2SC2411K	PAN 5V SW	For the case in which the panel is attached.
Q74	DTA144EK	PAN 5V drive	For the case in which the panel is attached.
Q75	XDC124EK	PAN 5V control	For the case in which the panel is attached.
Q76	DTA144EK	Manual reset SW	
Ω77	XDC144EK	Manual reset SW	
Q80	2SC2411K	LCD lamp SW	
Q502	DTA144EK	AFC SW	
Q503	2SC2412K	AFC SW	
Q505	2SC2412K	CRSC SW	

CIRCUIT DESCRIPTION

1-3. Switch Unit (X25-7042-71)

Ref No.	Semi. name	Use and function	Operation
IC1	75004GB-863-3B4	Panel μ-COM	Control of display, keys and remote control, communications with
			Master μ-COM.
1C2	PST572DMT	Reset IC	Resets Panel μ-COM.
IC3	RS-21	Remote control sensor	
IC4, 5	LC7582E	LCD driver	
Q1	DTA143XK	INH driver	Drives the LCD driver INH signal and remote control sensor power.
Q2	DTC144EK	INH driver SW	
	XDC144EK		

1-4. Daughter Unit (X89-2002-71)

Ref No.	Semi. name	Use and function	Operation
Q1	DTA124EK	P.CON out driver	
Q2	2SA1037K	P.CON out driver	1000
Q3	2SB822F	P.CON out driver	
Q4	DTC114EK	P.CON driver SW	

CIRCUIT DESCRIPTION

2. KENWOOD INTELLIGENT 2 IF (K2I)

2-1. K2I IF band switch

To take proper operation according to the radio wave condition of each country, the K2I performs automatic switching of IF band by setting the IF filter bandwidth to Wide or Narrow based on the information from three detector circuits.

The three detector circuits refer to:

- 1. 100 kHz beat detector (100 kHz adjacent interference detection)
- 2. Deviation detector (Overmodulation detection)
- 3. Weak strength detector (Field strength detection)

By setting the IF bandwidth automatically according to the logic rule, a high-sensitivity with low noise and optimum state in any country is implemented.

2-2. Newly developed narrow-band IF filter

The previously used IF filter could not eliminate the adjacent interference within 100 kHz completely.

The newly developed IF filter has a very narrow bandwidth characteristic compared to the previous filter, and also allows to obtain stable tuning frequency and selectivity characteristics.

To make low distortion and high separation possible even with the narrow-band filter, new circuitry is used together with it.

2-3. Description of Data of K2I

2 signal selectivity

While the selectivity within + 100 kHz with the previous ceramic filter was only about 2 dB, A selectivity of 15 to 20 dB can be achieved by using the newly developed narrow-band ceramic filter on the Narrow side. (fig. 1)

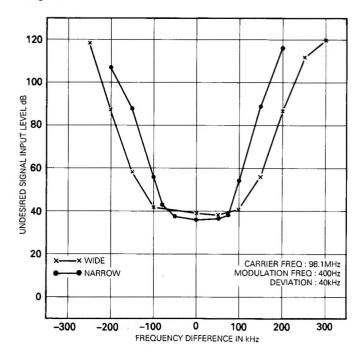


fig. 1 Notice the high selectivity (in Narrow mode) within + 100 kHz.

CIRCUIT DESCRIPTION

3. Programme Type Codes

The PTY mode allows to search the programme type the user desired based on the broadcast content data transmitted by each network. This table shows the data on the programme types. However, at present, many radio stations do not handle this service and the areas where this function is available and the pro-

gramme types are limited.

Data in the last column of the table, No. 31 (Alarm) is transmitted with emergency broadcast. This programme type cannot be selected as one of the PTY programme types.

3-1

Code	Program type	English	Français	Deutsch	
1	News	NEWS	INFOS	NEWS	
2	Current Affairs	AFFAIRS	MAGAZINE	POLITIK	s
3	Information	INFO	SERVICES	SPEZWORD	P
4	Sport	SPORT	SPORT	SPORT	E
5	Education	EDUCATE	EDUCATIF	LERNEN	E
6	Drama	DRAMA	FICTION	HOER+LIT	С
7	Culture	CULTURE	CULTURE	KULTUR	Н
8	Science	SCIENCE	SCIENCES	WISSEN	
9	Varied	VARIED	DIVERS	UNTEAR	
10	Pop Music	POP M	М РОР	POP	
11	Rock Music	ROCK M	M ROCK	ROCK	М
12	M. O. R Music	M. O. R M	M VARIEE	U-MUSIC	U
13	Light Classical	LIGHT M	M CL LEG	L-KLASS	s
14	Serious Classical	CLASSICS	M CL SER	E-KLASS	7 1
15	Other Music	OTHER M	AUTRE M	SPEZ MUS	С
31	Alarm	ALARM	ALERTE	ALARM	

3-2. Definition of the terms used to denote Programme Type

a. Speech-based categories

1. News

Short accounts of facts, events and publicly expressed views, reportage and actuality.

2. Current affairs

Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including documentary debate, or analysis.

3. Information

Programme whose purpose is to impart advice in the widest sense, including meteorological reports and forecasts, consumer affairs, medical help, etc.

4. Sport

Programme concerned with any aspect of sport.

5. Education

Programme intended primarily to educate, of which the formal element is fundamental.

6. Drama

All radio plays and serials.

7. Culture

Programmes concerned with any aspect of national or regional culture, including religious affairs, philosophy, social science, languadge, theatre, etc.

8. Science

Programmes about the natural sciences and technology.

9. Varied

Used for mainly speech-based programmes usually of light-entertaiment nature, not covered by above categories. Examples are: quizzes, panel games, personality interviews, comedy and satire.

b. Music based categories

10. Pop

Commercial music, which would generally be considered to be of current poplar appeal, often featuring in current or recent record sales charts.

11. Rock

Contemporary modern music, usually written and performed by young musicians.

12. M.O.R.

(Middle of the Road Music). Common term to describe music considered to be "easy-listening", as opposed to Pop, Rock or Classical. Music in this category is often but not always, vocal, and usually of short duration (<5min.).

CIRCUIT DESCRIPTION

13. Light classics

Classical Musical for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.

14. Serious classics

Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.

15. Other music

Musical styles not fitting into any of the above categories. Particularly used for specialist music, of which Jazz, Rhythm & Blues, Folk, Country, and Reggae are examples.

c. Other

16~30. Not yet assigned.

31. Alarm

Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature.

Note: These definitions can slightly differ between various language versions.

3-3. Operation method

- 1. The PTY mode is initiated at press of the PROG key. (The PTY mode is canceled at the next press of the PROG key).
- 2. The language can be displayed by holding the CLK key depressed for 1 second.
 - Languages of three countries (English, French, German) can be recalled at press of preset keys 1 to 3. The selected language can be established at press of the CLK key. After this, go to step 3) below.
- 3. Programme type selection: keys 1 to 6, FM key, AM key.
- 4. PTY search starts at press of **⋈**/**⋈** key.
- 5. A station with the selected programme type is tuned (The PTY mode is cancelled in 10 seconds after tuning).

(Within 10 seconds)

- 7. The seek operation ends after one cycle (the PTY mode is cancelled).

3-4. Display in PTY mode

- "NEWS" Last programme type display. PTY dots ON.
- 2. "ENGLISH" Last language display. PTY dots ON.
- 4, 6. "NEWS" Programme type display. PTY dots ON.
- 5. "BBC KENT" Tuned station PS display.
 PTY dots blinking.
- 7. "NO PTY" (2 seconds)
 PTY dots OFF.

3-5. EON search method

- •The PI code of the last channel is not searched even when it exists in the data.
- •After the seek operation is started, the PI code is confirmed unconditionally every time SD is detected (including stations tuned in EON search).
- •The language can be selected from English, French and German.

3-6. Modification of TI Search function in '93 model

 Auto TI search is not executed with the TUNER source.

But, the TI dots blink at the timing of search. (It is executed like before with other sources.)

Reason: To prevent TI search from occurring in case the station tuned by search in the PTY mode is not a TP station.

3-7. Modification of specifications of SDK model with timer function in '93 model

 Auto SK search is not executed with the TUNER source. However, the SDK dots blink at the timing of search.

(It is executed like before with other sources.)
Reason: To prevent auto SK search from occurring in case the station tuned by the timer function is not a SK station.

CIRCUIT DESCRIPTION

4. Security Data Read/Write Specifications

The security data memory is read or written at timings (1) ~ (5) described in the following.

4-1. Code entry method

- 1. After turning power ON, press and hold the K2l key for more than 3 seconds.
- 2. Preset keys 1 ~ 4

		CODE		
1	• • • •	CODE	0	0
1	• • • •	CODE	1	0
2	• • • •	CODE	10	0
2	• • • •	CODE	11	0
2	• • • •	CODE	12	0
3	• • • •	CODE	120-	0
3	• • • •	CODE	121-	0
3	• • • •	CODE	122-	0
3	• • • •	CODE	123-	0
3	• • • •	CODE	124-	0
4		CODE	1240	0

End of entry until the 4th digit.

- 3. Press and hold the K2I key for more than 3 seconds....End of code entry.
- The security mode is turned ON if the code is OK (1)

4-2. Code request

In the security mode, the code request is issued when returning from BACK UP OFF or after reset .. (3) 1. Power ON

		CODE	0
		(Input	(Displayed for 1 sec.)
1	• • • •	0	0 (1 sec. after)
1	• • • •	1	0
2	• • • •	10	0
2	• • • •	1 1	0
2	• • • •	12	0
3	• • • •	120-	0
3	• • • •	121-	0
3	• • • •	122-	0
3	• • • •	123-	0
3	• • • •	1 2 4 -	0
4	• • • •	1240	0

- 2. After the entry until the 4th digit, press and hold the K2l key for more than 3 seconds to establish.
- •When the code is OK....Power ON(4)
- Second time and after: When the code is No Good WAIT (Entry is head for 5 min.)(5) 5 minutes later....---- (Entry possible)

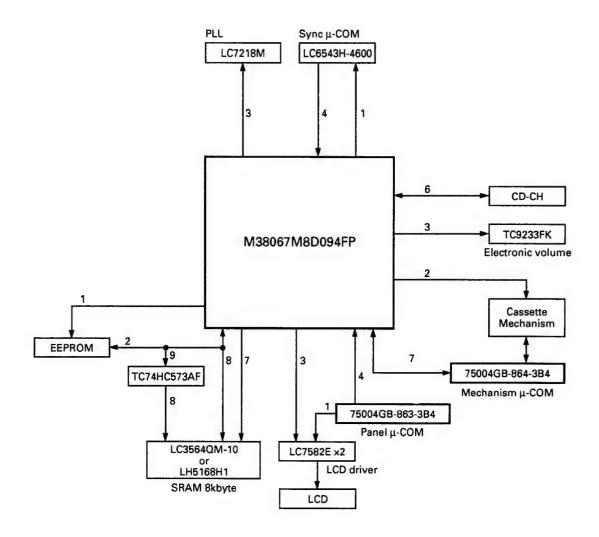
Hereafter, the hold time after the entered code is No Good changes as shown below.

1st try	0
2nd try	
3rd try	
4th try	1 hour
5th try and after	24 hours
(The try count is displayed	on the right.)

- (1) The security mode is permitted by the entry of the correct code.
 - Security mode ON write.
- (2) Security mode ON/OFF write.
- (3) Security mode data read after reset or when the set is attached (Security code, No Good try count, other data).
- (4) 0 is written in No Good try count.
- (5) The No Good try count is incremented by +1 and written.

CIRCUIT DESCRIPTION

5. Block Diagram of Microcomputers and Surroundings



CIRCUIT DESCRIPTION

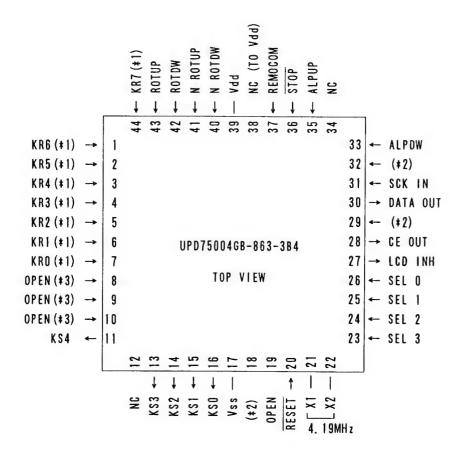
6. IC1: 75004GB-863-3B4 (X25-7042-71)

Panel Microcomputer

Summary

This microcomputer is mounted in the panel of the '92 model with detachable panel specifications, and used to send the key data, remote control data and rotary control data inputs to the System Controller as command data. The System Controller operates based on the input commands.

6-1. Pin connection



*1:Software pull up

*2:Vss or Vdd

*3:Mask option pull up

CIRCUIT DESCRIPTION

6-2. Terminal Description (All pin numbers refer to flat package types.)

Pin No.	Pin Name	I/O	Description
1~7	KR6~KR0	i	Key Return 6~0 (Active Low). Internally pulled up. Programme selection.
8, 9	11.10	i	Not used. Open. Internally pulled up. Mask option.
10		i	Not used. Open. Internally pulled up. Mask option.
11	KS4	0	Key Scan 4 (Active Low). Open drain terminal. (Diode is not necessary).
12	NC	_	No Connection, Open.
13~16	KS3~KS0	0	Key Scan 3~0 (Active Low). Open drain terminal. (Diode is not necessary).
17	Vss	_	µ-COM earth GND.
18	XT1	_	Not used. Connected to Vdd or Vss.
19	XT2	-	Not used. Open.
20	RESET	1	Reset input.
21, 22	X1, X2	_	Ceramic oscillator connection terminal. (4.19 MHz)
23~26	SEL3~SEL0	1	Model selection check terminal. (Selected according to pull-up/pull-down).
27	LCDINH	0	LCD driver inhibit terminal.
28	P_CE	0	Key data send request.
29		ı	Not used. Connected to Vdd or Vss.
30	P_DATA	0	Key data line.
31	P_CLK	ı	Key data clock. (Max. 1 MHz)
32		1	Not used. Connected to Vdd or Vss.
33	NARTDW	I	Input to phase-type, double-edge rotary encoder. (Down)
34	NC	_	No Connection. Open.
35	NARTUP	1	Input to phase-type, double-edge rotary encoder. (Up)
36	P_STOP	1	Stop request (oscillation stop).
37	REMO	1	Remote control data input.
38	NC		VDD.
39	VDD	-	Power supply terminal, 5 V.
40	NRTDW	l	Input to phase-type, single-edge rotary encoder. (Down)
41	NRTUP		Input to phase-type, single-edge rotary encoder. (Up)
42	RTDW	1	Input to rotation direction pulse input type rotary encoder. (Down)
43	RTUP		Input to rotation direction pulse input type rotary encoder. (Up)
44	KR7	1	Key Return 7 (Active Low). Internally pulled up. Programme selection.

NOTE: All of the unused rotary encoder inputs must be pulled down to Vss.

CIRCUIT DESCRIPTION

6-3. Terminals required for control

(1) System controller

Name	1/0	Contents
PANCON	0	Panel power supply terminal.
		When the panel is attached, supplies power to the panel for initial start-up of the Panel μ-COM.
		Interlocked with the RESET terminal of the Panel μ-COM.
PANIN	Ī	Terminal for detecting that the panel is attached on the head unit.
		PANCON must be turned OFF while the panel is not attached.
P_STOP	0	Stop request to Panel μ-COM. When power or Acc is turned OFF, sets the Panel μ-COM to the stop status in order to reduce the Back Up current. As the Panel μ-COM inhibits the LCD driver at the positive going of this terminal, the LCD display disappears for 1 second when this output is dropped for a moment.
		Therefore, to cope with possible terminal contact failure, this terminal is provided with a time constant of 20 to 30 ms in the hardware. In case the output from this terminal is dropped, the System Controller should take this time constant in consideration and wait to ensure before restarting.
P_CE		Key data send request from Panel μ-COM.
P_CLK	0	Clock output to Panel μ-COM.
P_DATA	Ī	Key data input from Panel μ-COM.

(2) Panel u-COM

Name	1/0	Contents
RESET	ı	Every time the System Controller turns PANCON output ON, this terminal is reset and the initial start of Panel
		μ-COM occurs. At this time, the Panel μ-COM checks that the EJECT key is ON and sends test mode codes.
STOP	1	Stop request input, which sets the Panel μ-COM immediately in the stop status. Even in stop status, key codes
		of certain keys continue to be transferred.
P_CE	0	Key data send request to System Controller.
P_CLK	1	Clock from System Controller.
P_DATA	0	Key data output to System Controller.

CIRCUIT DESCRIPTION

6-4. Key matrix

- Key matrix and specifications of microcomputer for detachable panel
- * KRC-1054R/KRC-954R

KEY SCAN	KS4		KS3		KS2	2	KS1		KS0	
KEY RETURN	P50 (11pin)		P43 (13pin)		P42 (14pin)		P41 (15pin)		P40 (16pin)	
KR0 (with built-in pull-up R)				*	AM	*	① (AUTO)	*	PRESET 1	*
P60 (7pin)	(SORCE)	90H	(AUDIO)	88H		80H		78H	KEY CORD :	70H
KR1 (with built-in pull-up R)	EJECT				FM	*	② (LOCAL)	*	PRESET 2	*
P61 (6pin)		91H				81H	A•ME	79H		71H
KR2 (with built-in pull-up R)			VOL ATT	*	DOWN	*	③ (COCK)	*	PRESET 3	*
P62 (5pin)			■ LOUD	8AH	(Multiple	82H	(Multiple	7AH		72H
					presses of	CLK)	presses of C	LK)		
KR3 (with built-in pull-up R)	PROG		VOL UP	*.	UP	*	④ (TI)	*	PRESET 4	*
P63 (4pin)		93H	*4 (Multiple	8BH	(Multiple			7BH		73H
			presses of Cl	_K)	presses of	CLK)				
KR4 (with built-in pull-up R)			VOL DOWN	*	PRESET 6	*	® RDS	*	PRESET 5	*
P70 (3pin)			4 (Multiple	8CH		84H		7CH	*1	74H
			press of VOL)						
KR5 (with built-in pull-up R)			■ NEGA/POS	31 *	■ CODE	*				
P71 (2pin)			ILL	8DH	K2!	85H				
KR6 (with built-in pull-up R)										
P72 (1pin)										
KR7 (with built-in pull-up R)										
P73 (44pin)										

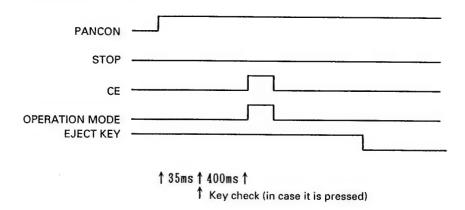
All pin numbers refer to flat package pins.

- * Even while the STOP command to the Panel μ -COM is in effect, when one of the 8 keys assigned to KS4 is pressed to ON, the stop status is released and the key code is sent. This makes the System Controller possible to return from the Power OFF status.
- * As for the remote control codes, when a valid custom code is input, the key code is transferred provided that the key code is from 00H to 1FH.

CIRCUIT DESCRIPTION

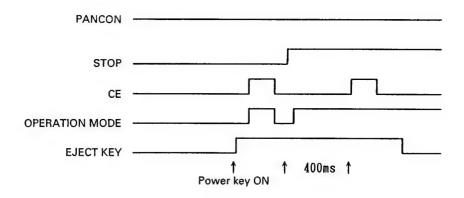
6-5. Timing chart

(1) Reset by RESET switch on the panel



When the Panel μ -COM is reset, Whether the TAPE (Source) or EJECT key is pressed ON or not is checked in the initial processing, and "51H" (TAPE) and "52H" (TAPE) are sent if the key is pressed, and "50H" is sent if it is not.

(2) POWER key pressed ON in stop status

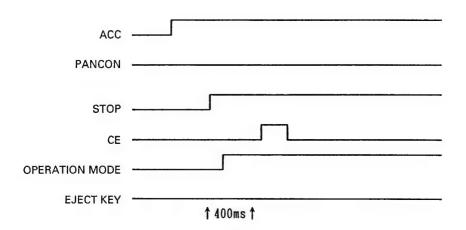


When the POWER key is pressed ON, one of three kinds of key codes shown below are sent. The System Controller executes the power ON operation according to the key code.

- I. In case 1 + 5 are also pressed simultaneously : "61H" Destination change
- II. In case 2 + 3 are also pressed simultaneously : "62H" Not used
- III. In case 1 + 3 are also pressed simultaneously : 63H" DSI
- IV. In case TONE is pressed simultaneously : "64H" Security
- V. Other status than I, II, III and IV above : "60H"
- * As the same processing as (3) is executed with the timings marked *, the System Controller should ignore them.

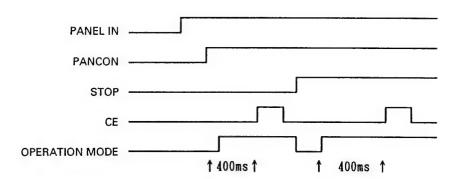
CIRCUIT DESCRIPTION

(3) When Acc is turned ON in case the last power OFF was executed by turning Acc OFF



When the POWER key is pressed ON, one of three kinds of key codes shown below are sent. The System Controller executes the power ON operation according to the key code.

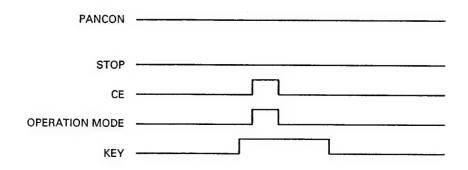
- In case 1 + 5 are also pressed simultaneously"61H" Destination change
- II. In case 2 + 3 are also pressed simultaneously : "62H" Not used
- III. In case 1 + 3 are also pressed simultaneously : "63H" DSI
- IV. In case TONE is pressed simultaneously : "64H" Security
- V. Other status than I, II, III and IV above : "60H"
- (4) When the panel is attached in case the last power OFF was executed by detaching the panel In this case, the last power ON status is stored in memory and the unit starts with TUNER ON.



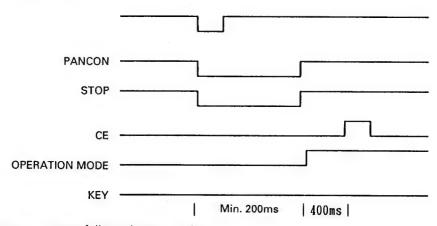
As the Panel μ -COM cannot judge where a start is caused by resetting the unit or attaching the panel, it executes both processing (1) and (3). As a result, the System Controller executes processing (1) (ignoring key commands) first, then executes processing (3) (ignoring key commands).

CIRCUIT DESCRIPTION

(5) When the EJECT, TUNER, TAPE or CD-CH key is pressed in stop status



(6) Timing in case of momentary power failure



In case of momentary power failure, because the panel power and the STOP terminal are provided with time constants, the status should be held for 200 ms or more after PANCON or STOP is stopped.

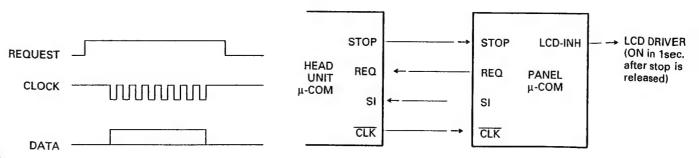
6-6. Communication method (3-wire, unidirectional)

The head unit outputs CLOCK (8 bits) at the positive going of REQUEST from the Panel μ -COM. The data the head unit receives at this time becomes the key data.

If the Panel μ -COM does not receive the CLOCK input within 100 ms after it rises REQUEST, it identifies a communication error, turns REQUEST OFF and restart the communication.

While STOP is Low, this restart operation is tried up to 5 times per key input, and after the 5th try the panel returns in the stop status.

The Panel μ -COM uses the serial ports. Data is input at the positive going of CLOCK.

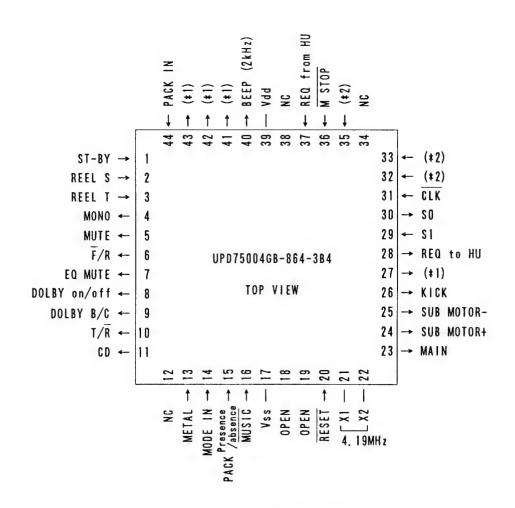


CIRCUIT DESCRIPTION

7. IC17: 75004GB-864-3B4 (X14-5002-71)

Casette Mechanism Microcomputer

7-1. Pin connection



*1:Puli up or puli down
*2:Vss or Vdd

CIRCUIT DESCRIPTION

7-2. Terminal Description (All pin numbers refer to flat package types.)

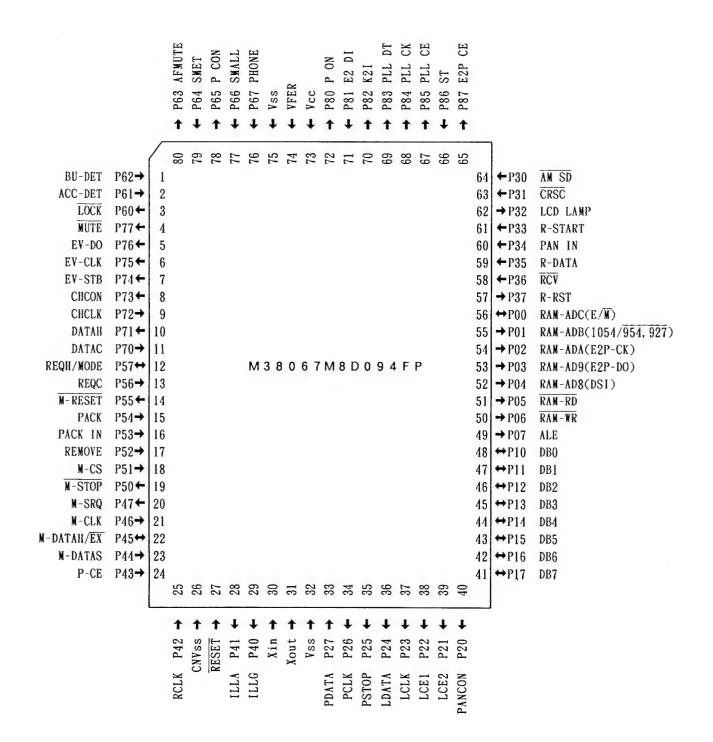
-2. Terminal Description			(All pin numbers refer to flat package types.)								
Pin No.	Pin Name	I/O	Description								
1	ST-BY	1	Mechanism Stand-by switch input.								
2	REEL S	1	Supply reel pulse input.								
3	REELT	l	Take-up reel pulse input.								
4	MONO	0	Forced monaural control output.								
5	MUTE	0	Muting output. (Not used)								
6	FWD/REV	0	Equalizer amplifier FWD/REV switching output.								
7	EQ MUTE	0	Equalizer muting output ("H" during play).								
8	DOLBY ON/OFF	0	Dolby output. "H" "H" "L"								
9	DOLBY B/C	0	Dolby output. \leftarrow DOLBY OFF \leftarrow DOLBY B \leftarrow DOLBY C								
			"H" "L" "H"								
10	T/R	0	Source switching control.								
11	CD	0	Radio CD-CH Tape								
			10 L H H								
			11 X L H								
12	NC	_	No Connection. Open.								
13	METAL	1	Metal tape detection ("L" = Metal).								
14	MODE IN	1	Mode pulse detection ("L" = Mode).								
15	PACK DETECT	ı	Cassette pack present/absent detection ("H" = Pack detected).								
16	MUSIC	1	Music detection for music search ("H" = Blank).								
17	Vss		μ-COM earth GND.								
18, 19	XT1, XT2	-	Not used. Open.								
20	RESET	_	Reset input.								
21, 22	X1, X2	-	Ceramic oscillator connection terminal. (4.19 MHz)								
23	MAIN	0	Main motor output.								
24	SUB+	0	Sub motor forward output.								
25	SUB-	0	Sub motor reverse output.								
26	KICK	0	Kick output for escape from gear mesh.								
27		0	Not used. Pulled up or pulled down.								
28	REQ TO HU	0	Communication request to head unit.								
29	S1	1	Serial data input line.								
30	S0	0	Serial data output line.								
31	CLK	1	Serial clock input line.								
32, 33		1	Not used. Connected to VDD or Vss.								
34	NC	_	No Connection. Open.								
35		1	Not used. Connected to VDD or Vss.								
36	M-STOP	1	Stop request. (Oscillation stop)								
37	RQ FROM HU	1	Communication request from head unit.								
38	NC	_	No Connection. Open.								
39	VDD	-	Power supply terminal. 5 V.								
40	BEEP	0	Beep output. (2 kHz)								
41~43		0	Not used. Pulled up or pulled down.								
44	PACK IN	1	PACK-IN switch input.								

CIRCUIT DESCRIPTION

8. IC16: M38067M8D094FP (X14-5002-71)

System Microcomputer

8-1. Pin connection



CIRCUIT DESCRIPTION

Pin No.	Port No.	Pin Name	1/0	Active	Function	Н			
1	P62	BU-DET	1	L	Momentary power failure detection. Momentary failure = "H".				
2	P61	ACC-DET	l		Acc ON/OFF input. ON = "L".				
3	P60	LOCK	0	L	CK-50 control ON = "L". ("H" when unlocked)	_			
4	P77	MUTE	0	L	Muting ON/OFF.	+			
5	P76	EV-DO	0		Electronic volume data.				
6	P75	EV-CLK	0		Electronic volume clock.	+			
7	P74	EV-STB	0	Н	Electronic volume STB.	+-			
8	P73	CHCON	0	Н	CD-CH control ON/OFF.				
9	P72	CHCLK		11	CD-CH clock.	\perp			
10	P71	DATAH				+			
11	P70	DATAC			CD-CH output data.	+			
12	P57		0"		CD-CH input data.				
		REQH/MODE	0/1	L	CD-CH request output. In test mode, K2I mode read.				
13	P56	REQC		L	CD-CH request input.	\bot			
14	P55	M-RESET	0	L	Cassette mechanism controller reset.	_			
15	P54	PACK	<u> </u>		Cassette pack detection. Detected = "L".				
16	P53	PACK IN		Н	Cassette PACK-IN switch input. PACK IN = "H".				
17	P52	REMOVE	l		Panel detached detection input. Attached = "H".				
18	P51	M-CS	l		Cassette mechanism controller CS.				
19	P50	M-STOP	0	L	Cassette mechanism controller output stop.				
20	P47	M-SRQ	0	L	Cassette mechanism controller SRQ.				
21	P46	M-CLK	1	L	Cassette mechanism controller communication clock.				
22	P45	M-DATAH/	-		Output data for communication with cassette mechanism controller.				
		EX RST			During RESET, "L" for forced reset operation (Memory clear).				
23	P44	M-DATAS	1	L	Input data for communication with cassette mechanism controller.	-			
24	P43	P-CE	<u> </u>		Panel μ-COM Chip Enable.	+-			
25	P42	RCLK			Sync μ-COM Clock.	+-			
26	CNVss	TIOLIC		GND	Chip operation control (single mode "L").	+			
27	RESET			GND	Reset.				
28	P41	ILLA	0	L		+-			
	P40			Н	Illumination - Amber - ON.	+-			
29	-	ILLG	0	Н	Illumination - Green - ON.	+-			
30	XIN				Oscillator connection.	_			
31	XOUT		0		Oscillator connection.	_			
32	Vss				Earth GND.				
33	P27	PDATA	ı		Panel μ-COM communication data.	\perp			
34	P26	PCLK	0	Н	Panel μ-COM communication clock.				
35	P25	PSTOP	0	L	Panel μ-COM oscillation stop.				
36	P24	LDATA	0		LCD data.				
37	P23	LCLK	0		LCD clock	\top			
38	P22	LCE1	0	Н	LCD driver CE1.	T			
39	P21	LCE2	0	Н	LCD driver CE2.	+-			
40	P20	PANCON	0	Н	Panel µ-COM power control (Panel detached = "L").	+			
41~48	P17~P10	DB7~DB0	1/0		SRAM data bus.	+			
49	P07	ALE	0		Latch output.	+-			
50	P06	RAM-WR	0		SRAM write	-			
51	P05	RAM-RD	0		SRAM read	-			
52	P03	RAM-AD8	0			+-			
					SRAM address/When panel is detached, used as the DSI pulse output.	+-			
53	P03	RAM-AD9	0		SRAM address/EEPROM data output.	_			
54	P02	RAM-ADA	0		SRAM address/EEPROM clock.	_			
55	P01	RAM-ADB	0		SRAM address/Initial setting (222/224).				
56	P00	RAM-ADC	0		SRAM address/Initial setting (E/M).				
57	P37	R-RST	0		Sync μ-COM reset.				
58	P36	RCV	I		Sync detection.	T			
59	P35	R-DATA	ı		Sync μ-COM data.	\top			
60	P34	PAN IN			Panel detection. Panel detached = "L".	-			

CIRCUIT DESCRIPTION

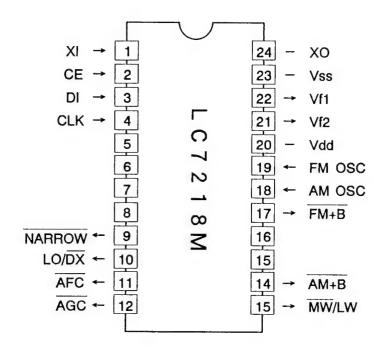
Pin No.	Port No.	Pin Name	1/0	Active	Function	Halt
61	P33	R-START	1		Sync μ-COM start data.	
62	P32	LCD LAMP	0	Н	LCD lamp control.	L
63	P31	CRSC	1		Noise detection. Noise detected = "L".	
64	P30	AMSD	1		FM: Band muting detection/AM: SD station detected = "L".	
65	P87	E2P-CE	0	L	EEPROM CE.	L
66	P86	ST	l		Stereo/Mono.	
67	P85	PLL-CE	0		PLL CE.	L
68	P84	PLL-CLK	0		PLL clock.	L
69	P83	PLL-DT	0		PLL data.	L
70	P82	K2I	0	Н	K2I control. "H" = Forced Wide (K2I OFF). "L" = Auto (K2I ON).	L
71	P81	E2 DI	1		EEPROM data input.	
72	P80	P-ON	0		Peripheral power control.	L
73	Vcc				Power supply.	
74	VREF		I		A/D conversion reference voltage.	
75	Vss				Earth GND.	
76	P67	PHONE	I	L	EX muting.	
77	P66	SMALL	Ī	L	Small input.	
78	P65	P-CON	0	Н	P-CON output.	L
79	P64	S-MET	I		FM field strength input.	
80	P63	AF-MUTE	0	L,	Quick muting for AF search SD.	Н

CIRCUIT DESCRIPTION

9. IC1: LC7218M (X14-5002-71)

PLL

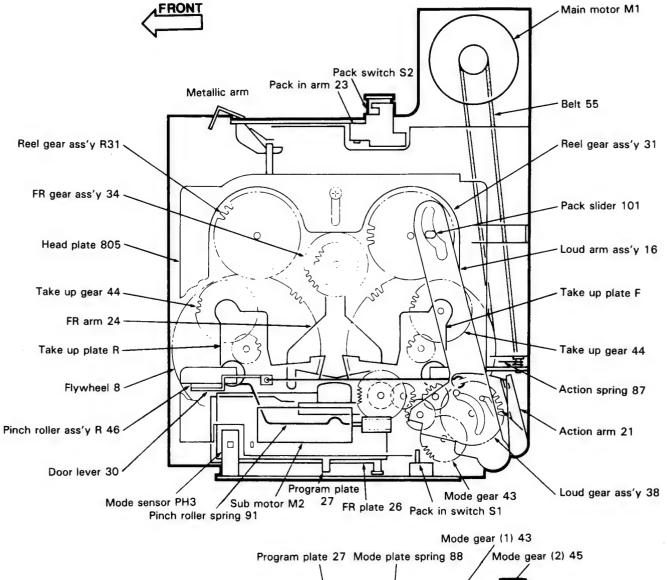
9-1. Pin connection



9-2. Terminal Description

Pin No.	Port No.	Pin Name	1/0	Active	Function
7	_		1		Not used (to earth GND).
8	_		1		Not used (to earth GND).
9	_	NARROW	0	_	"L" in Forced Narrow mode (test mode).
10		LO/DX	0	- ,	LOCAL/DX switching.
11		AFC	0	L	Automatic frequency control (FM).
12		AGC	0	L	Automatic gain control (AM).
13		MW/LW	0	L.	MW/LW switching.
14		AM (+B)	0	L	AM+B
17		FM (+B)	0	L	FM+B

MECHANISM OPERATION DESCRIPTION



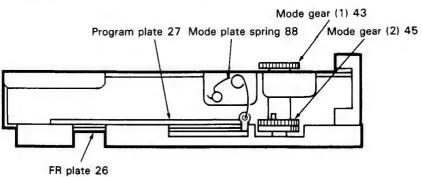
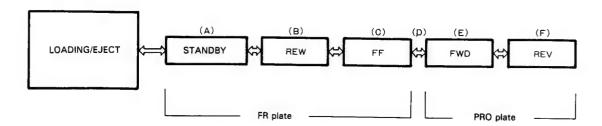


Fig. 1

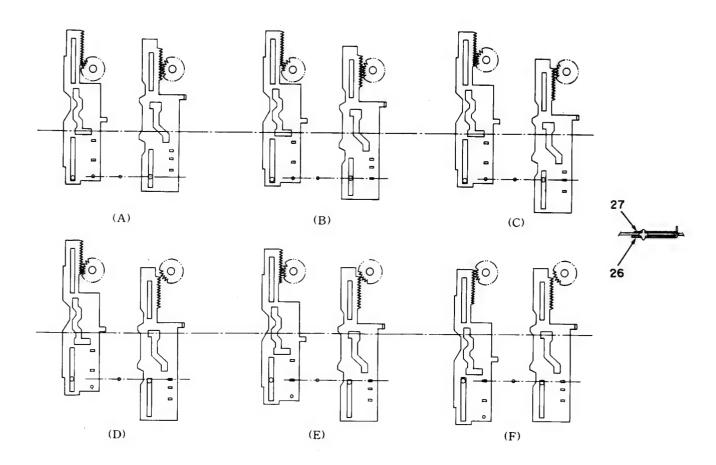
MECHANISM OPERATION DESCRIPTION

Mechanism operation modes

Each mode undergoes the following sequence:



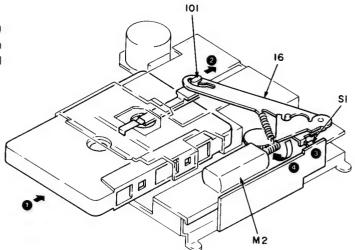
Each mode is determined by the positions of the FR and PRO plates.



MECHANISM OPERATION DESCRIPTION

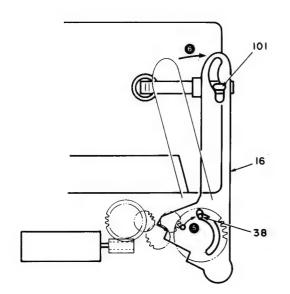
1. Loading

When the cassette tape is pushed in ①, the loading arm (16) moves via the pack slider (101)...②. Thus, the pack-in switch (S1) detects this...③, and the sub motor (M2) makes normal rotation...④.



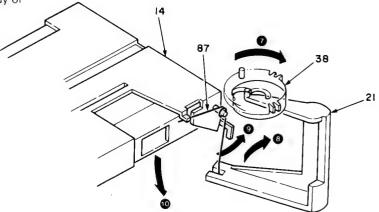
The rotation of the sub motor (M2) causes the load gear (38) to rotate by way of the idle gear... **⑤**.

The load gear (38) provides the rotation of the loading arm (16) by its pin... **6**, to load in the cassette tape.



2. PACK DOWN

When the load gear (38) further rotates \bigcirc , the action arm (21) also rotates \bigcirc to lower the action plate (14)... \bigcirc , by way of the action plate spring (87)... \bigcirc .

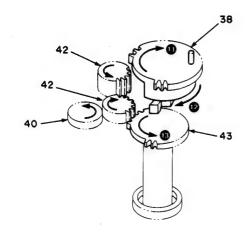


MECHANISM OPERATION DESCRIPTION

3. Change from load gear to mode gear

When the load gear (38) further more rotates ①, the boss under it pushes against the boss of the mode gear (43)... ②, so that the mode gear (43) rotates after the shift of its non-toothed section... ③.

Thus, the load gear (38) stops rotation on account of its non-toothed section coming.

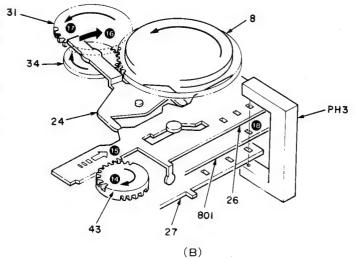


4. REW

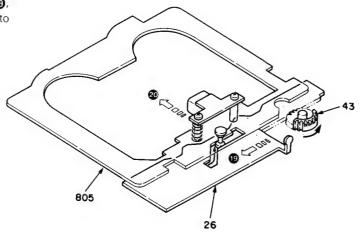
When the mode gear (43) rotates (1), the FR plate (26) under it moves (1). The cam of the FR plate (26) works to rotate the FR arm (24)... (1).

Further, the FR arm (24) moves to transmit the rotation of the flywheel (8) to the reel gear (31)... \bigcirc .

At this time, a slot (REW hole) of the FR plate (26) is detected by the mode sensor (PH3)... $\textcircled{1}{8}$, to stop the rotation of the sub motor.



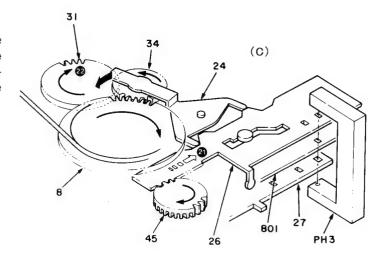
For REW or FF, due to the groove of the FR plate (26)... (9), the head plate (805) advances (20) so that the head moves to a position at which T-ADV is feasible.



MECHANISM OPERATION DESCRIPTION

5. FF

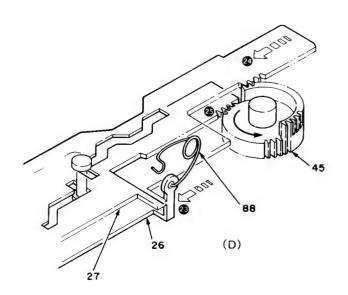
When the sub motor further rotates, the cam of the FR plate (26) moves ② so that the FR arm (24) is rotated in the reverse direction... ②. Thus, a slot (FF hole) of the FR plate (26) is detected by the mode sensor (PH3) to stop the rotation of the sub motor.



6. Change from FR plate to PRO plate

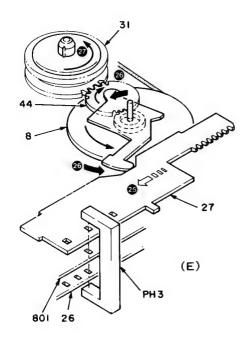
When the sub motor further more rotates, the knob of the FR plate (26) hits against the knob of the PRO plate (27)... ②, so that the PRO plate (27) moves.

Thus, the rack of the PRO plate (27) enters into engagement with the mode gear... 20. Then, the rack of the FR plate (26) is disengaged from the mode gear because of its non-toothed section coming... 25. The mode plate spring (88) assists in this operation.



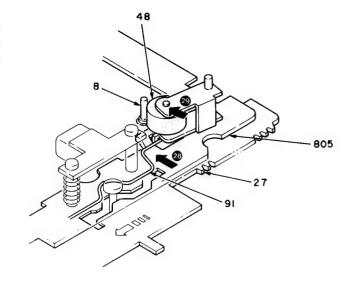
7. FWD PLAY

When the PRO plate (27) moves , the takeup plate F is rotated by the cam of the PRO plate (27) and the takeup gear (44) engages with the reel assy (31)... . The rotation of the flywheel (8) is transmitted to the reel assy (31) by way of the takeup gear (44)... . Thus, a slot (FWD hole) of the PRO plate (27) is detected by the mode sensor (PH3) to stop the rotation of the sub motor.



MECHANISM OPERATION DESCRIPTION

The groove of the PRO plate (27) serves to advance the head plate (805)... ②, to move the head and the pinch roller (48) to their FWD PLAY position. The pinch roller (48) is contacted to the capstan (8) by pressure due to the shift to the takeup plate and the force of the pinch roller spring... ②.

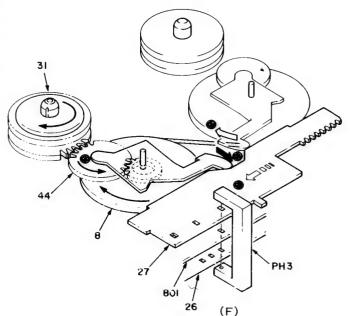


8. REV PLAY

When the PRO plate (27) further moves, the takeup plate F returns by the cam of the PRO plate (27)... \mathfrak{J} , and the takeup plate R rotates \mathfrak{D} .

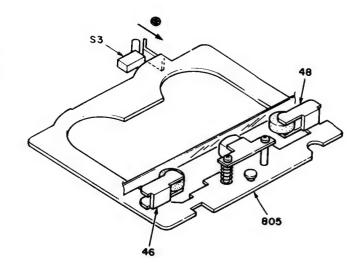
The rotation of the flywheel is transmitted to the reel assy (31) by way of the takeup gear (44)... **3**.

Thus, a slot (REV hole) of the PRO plate (27) is detected by the mode sensor (PH3) to stop the rotation of the sub motor.



9. STANDBY (PAUSE)

From a given mode, when the head plate (805) regresses due to the reverse rotation of the sub motor rotates, when the pause switches (S3) acts ("L" to "H") to stop the rotation of the sub motor, the pause mode is entered.



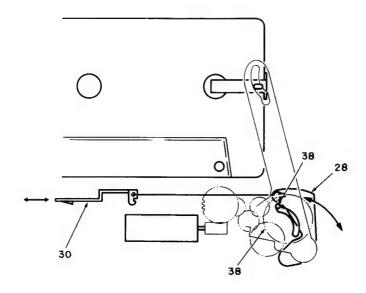
MECHANISM OPERATION DESCRIPTION

10. EJECT

When the sub motor is reversely rotated, an operation reverse to the loading operation is performed to eject the cassette tape.

11. SHUTTER DOOR

For loading or eject, the door arm (28) is actuated by the pin of the load gear (38). The door arm (28) moves the door lever (30) forwards or backwards to open or close the cassette door (lid).

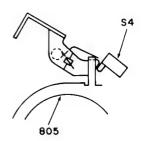


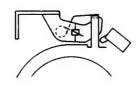
12. AUTO REVERSE

The tape end is detected by the sensor which senses the reel rotation.

13. AUTO METAL

The auto metal switch (S4) detects the high position hole of the cassette tape when the head plate (805) is advancing.







AJUSTMENT

Set the controls and switches as follows.

BALANCE :center position BASS :center position LOUD :OFF LOCAL :OFF DOLBY NR :OFF

FADER :center position TREBLE :center position T · ADV :OFF AUTO :OFF

No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG
FI	M SECTION						
1	DISCRI- MINATOR	(A) 98.1MHz Odev 60dB μ (ANT input)	Connect a DC voltmeter to TP1 (X14-B/5)	FM 98.1MHz	T1 (X14-B/5)	0V	(a)
2	SEPARATION (WIDE)	(C) 98.1MHz 1kHz,±40kHz dev Pilot:±6.0kHz dev Selector:L or R 60dBµ(ANT input)	(B)	Test mode: (* 3) Forced Wide FM 98.1MHz	VR13 (X14-B/5)	Adjust it so that the crosstalk from L to R and R to L become minimum.	
3	ANRC (WIDE)	(C) 98.1MHz 1kHz,±40kHz dev Pilot:±6.0kHz dev Selector:L or R 35dB \(\text{(ANT input)} \)	(B)	Test mode: (*3) Forced Wide FM 98.1MHz	VR15 (X14-B/5)	Separation 10dB	
	After 3 adjustme	ent, measure DC voltage at	35 dBµ at TP2 (X14	I-B/5) and record. →	V35	-	(b)
4	SOFT MUTE LEVEL	(A) 98.1MHz 1kHz,±40kHz dev 60dBµ→No input	(B)	Test mode: (*3) Forced Wide FM 98.1MHz	VR11 (X14-B/5)	Output Noise level -25dBµ (When not add sny signal to ANT terminal)	
5	MUTE SENSITIVITY LEVEL	(A) 98.1MHz 0 dev 5 dB \(\mu(ANT \) input)	. –	Test mode: (*3) Forced Wide FM 98.1MHz	VR14 (X14-B/5)	LCD "PAUSE" ON → OFF	
6	SEEK STOP SENSITIVIT LEVEL	(A) 98.1MHz 0 dev 20dB ⊔ (ANT input)	1000	Test mode: (*3) Forced Wide FM 98.1MHz	VR2 (X14-A/5)	LCD "DdB" OFF → ON	
7	NARROW GAIN	(C) 98.1MHz 1kHz,±40kHz dev Pilot:±6.0kHz dev Selector:L or R 35dBu(ANT input)	Connect a DC voltmeter to TP2 (X14-B/5)	Test mode: (* 4) Forced Narrow FM 98.1MHz	VR1 (X14-A/5)	Same as V35 easured in Wide.	(b)
8	SEPARATION (NARROW)	(C) 98.1MHz 1kHz,±40kHz dev Pilot:±6.0kHz dev Selector:L or R 60dBµ(ANT input)	(B)	Test mode: (* 4) Forced Narrow FM 98.1MHz	VR12 (X14-B/5)	Adjust it so that the crosstalk from L to R and R to L become minimum.	
M۱	W SECTION						
(1)	SEEK STOP SENSITIVIT LEVEL	(D) 999kHz 0% mod 35dBµ(ANT input)	_	Test mode: (*5) AM mode MW 999kHz	VR3 (X14-A/5)	LCD "DdC" OFF → ON	
CA	ASSETTE DEC	K SECTION					
[1]	PLAYBACK LEVEL	MTT-150	Connect an AC voltmeter to TP1(X09-B/2)	TAPE PLAY	VR1(L) VR2(R) (X09-B/2)	300mV	(c)

* Test mode

- With power OFF, press and hold (EJECT +) while press RST SW.
 LCD ON mode starts. Be careful because VRs are maximum at this moment!
- Press SOURCE key to select TUNER (FM).
- Press K21 key. "K2!" goes OFF, "MTL" goes ON => Forced Wide. *3

 Press ATT key, "ATT" goes ON, "MTL" goes OFF => Forced Narrow. *4

 Press AM key to select TUNER (AM). *5

 Press RST SW to release test mode.

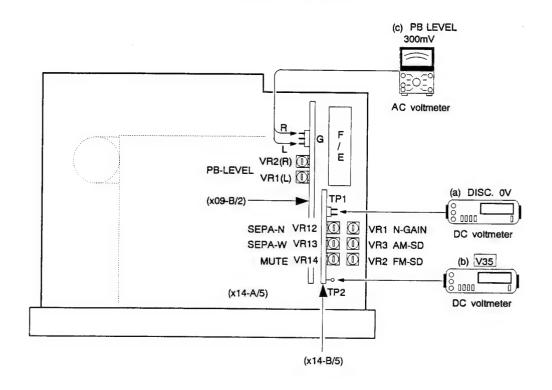
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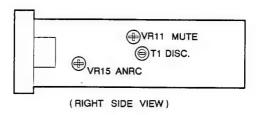
ADI	ANCE :Mittelage ER :Mittelage	TREBLE :Mittelage	LOUD :OF		:OFF	OLBY NR :OFF	
NR	GEGENSTAND	EINGANGS EINSTELLUNG	AUSGANGS EINSTELLUNG	(RECEIVER) EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FUR	AB
Uł	W-ABTEILUN	G		1			
1	DISKRI- MINATOR	(A) 98.1MHz 0 Hub 60dB \(mu(ANT-Eingang)	Den Gieichstrom Voltmeter zwischen den beiden Stiften von TP1 anschlieβen (X14-B/5)	FM 98.1MHz	T1 (X14-B/5)	0V	(a)
2	STEREO KANAL TRENNUNG (Weit)	(C) 98.1MHz 1kHZ,±40kHz Hub Pilot:±6.0kHz Hub Wahler: L or R 60dBµ(ANT-Eingang)	(B)	Testmodus : (*3) Weit erzwungen. FM 98.1MHz	VR13 (X14-B/5)	So einstellen, daß das Ubersprechen von L auf R und von R auf L minimal wird.	
3	ANRC (Weit)	(C) 98.1MHz 1kHZ,±40kHz Hub Pilot:±6.0kHz Hub Wahler: L or R 35dBµ(ANT-Eingang)	(B)	Testmodus : (*3) Weit erzwungen. FM 98.1MHz	VR15 (X14-B/5)	Trennung 10dB	
	Nach der 3 Eins	tellung die Gleichspannung	bei 35 dB⊔ an TP2 (x	(14-B/5) messen. →	V35		(b)
4	Weiche Dämpfung PEGEL	(A) 98.1MHz 1kHZ,±40kHz Hub 60dB⊔→No Eingang	(B)	Testmodus: (*3) Weit erzwungen. FM 98.1MHz	VR11 (X14-B/5)	Ausgangsrauschpeqel -25dB (Wenn nicht, ein beliebiges Signal an den ANT- Anschluβanlegen)	
5	Dämpfung- sempfindlichkeit PEGEL	(A) 98.1MHz 0 Hub 5dB µ (ANT-Eingang)	_	Testinodus: (*3) Weit erzwungen. FM: 98.1MHz	VR14 (X14-B/5)	LCD "PAUSE" EIN → AUS	
6	SUCHEN HALT PEGEL	(A) 98.1MHz 0 Hub 20dB u (ANT-Eingang)		Testmodus: (*3) Weit erzwungen. FM: 98.1MHz	VR2 (X14-A/5)	LCD "DØB" AUS → EIN	
7	SCHMAL- VERSTÄRKUNG	(C) 98.1MHz 1kHZ,±40kHz Hub Pilot:±6.0kHz Hub Wahler: L or R 35dBu(ANT-Eingang)	Den Gieichstrom Voltmeter zwischen den beiden Stiften von TP2 anschlieβen (X14-B/5)	Testmodus : (*4) Schmal erzwungen. FM 98.1MHz	VR1 (X14-A/5)	Gleich wie V35 gemessen in Weit.	(b)
8	STEREO KANAL TRENNUNG (Schmal)	(C) 98.1MHz 1kHZ,±40kHz Hub Pilot:±6.0kHz Hub Wahler: L or R 60dBµ(ANT-Eingang)	(B)	Testmodus : (* 4) Schmal erzwungen. FM 98.1MHz	VR12 (X14-B/5)	So einstellen, daß das Ubersprechen von L auf R und von R auf L minimal wird.	
MV	V-ABTEILUNG						
(1)	SUCHEN HALT PEGEL	(D) 999kHz 400Hz,30% mod 35dB \((ANT-Eingang)	_	Testmodus : (*5) AM modus MW 999kHz	VR3 (X14-A/5)	LCD "DOC" AUS → EIN	
CA	SSETTEN-DE	CK-ABTEILUNG					
[1]	WIDERGABE PEGEL	MTT-150	Einen wechsel- spannungsmesser zwischen zu TP1 anschlieβen. (X09-B/2)	Bandwiedergabe	VR1(L) VR2(R) (X09-B/2)	300m∨	(c)

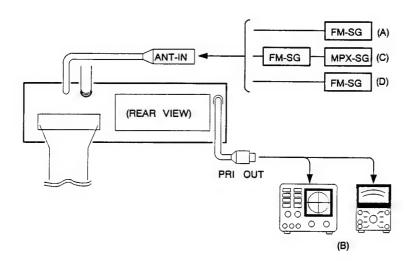
- Bei ausgeschalteter Spannungsversorgung (EJECT +) gedrückt halten und RST SW drücken.
 Der LCD ON-Modus beginnt. Vorsicht, weil die Regelwiderstände zu diesem Zeitpunkt maximal sind!
 Die SOURCE -Taste drücken, um TUNER (FM) zu wählen.
 Die K21 -Taste drücken. "K21" erlischt, "MTL" leuchtet => Weit erzwungen. *3
 Die ATT -Taste drücken. "ATT" leuchtet, "MTL" erlischt => Schmal erzwungen. *4
 Die AM -Taste drücken, um TUNER (AM) zu wählen. *5

- Zum Verlassen des Testmodus RST SW .drücken.

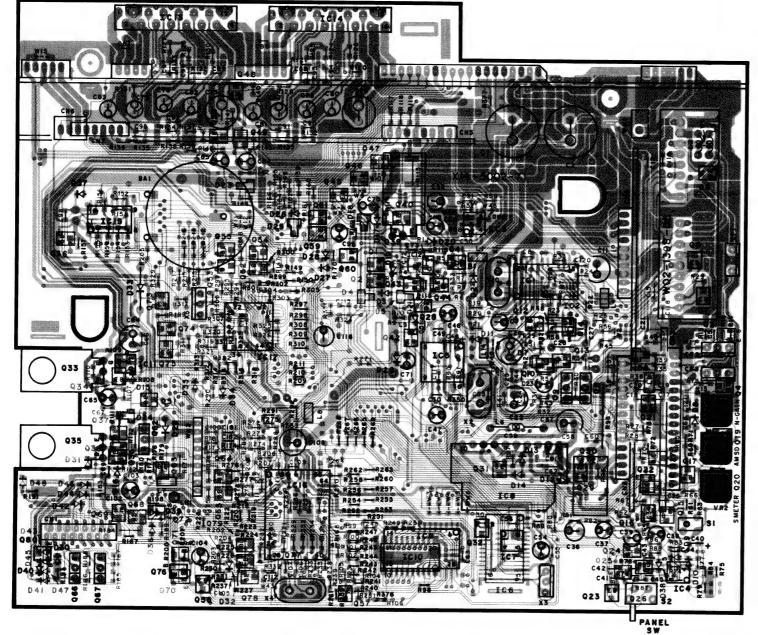
AJUSTMENT



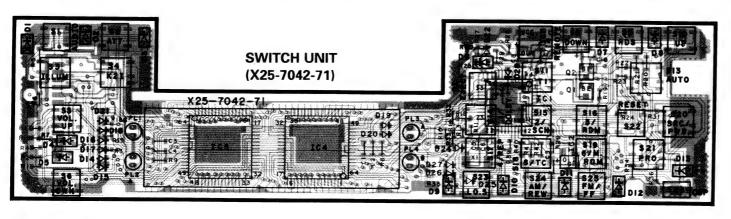




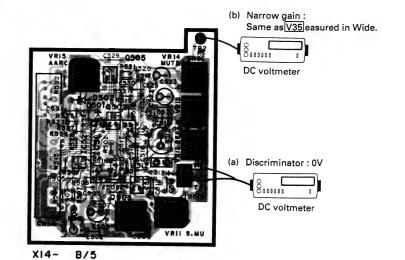
PC BOARD (COMPONENT SIDE VIEW)

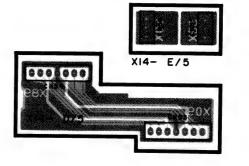


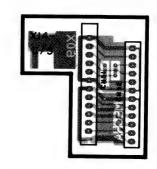
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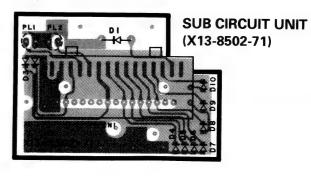


SYNTHESIZER UNIT (X14-5002-71)







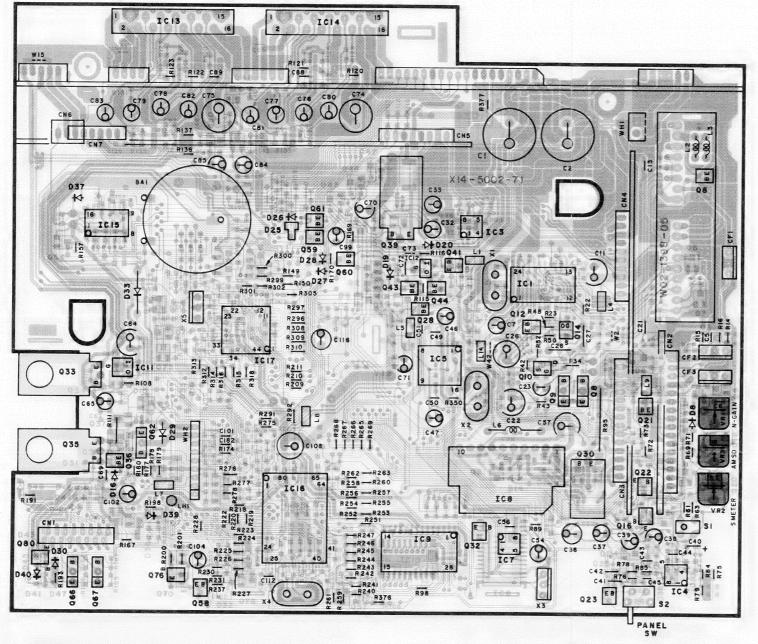


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7		5E			37	4B
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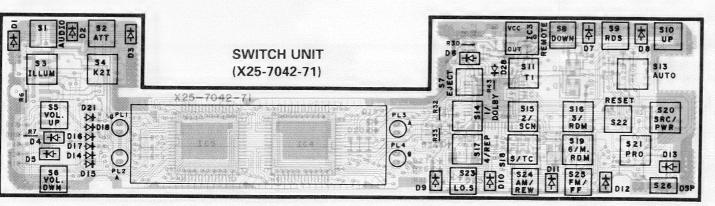
X14-5002-71

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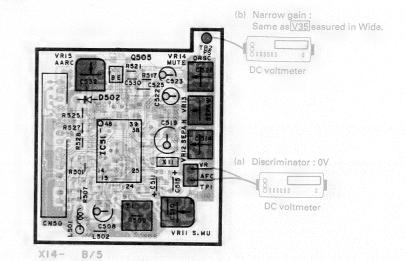
PC BOARD (COMPONENT SIDE VIEW)

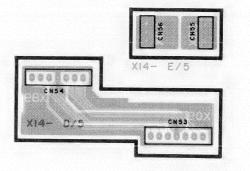


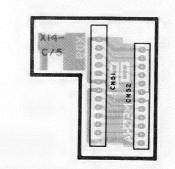
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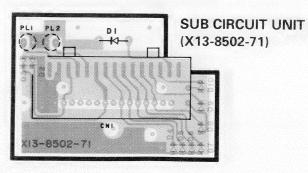


SYNTHESIZER UNIT (X14-5002-71)





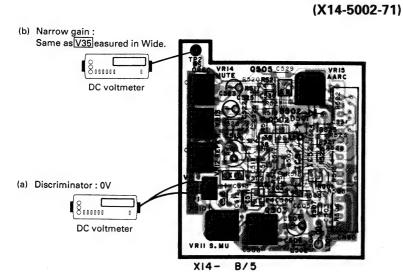




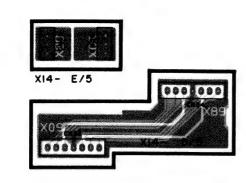
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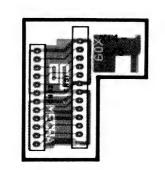
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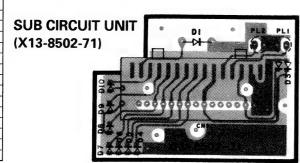
PC BOARD (FOIL SIDE VIEW)

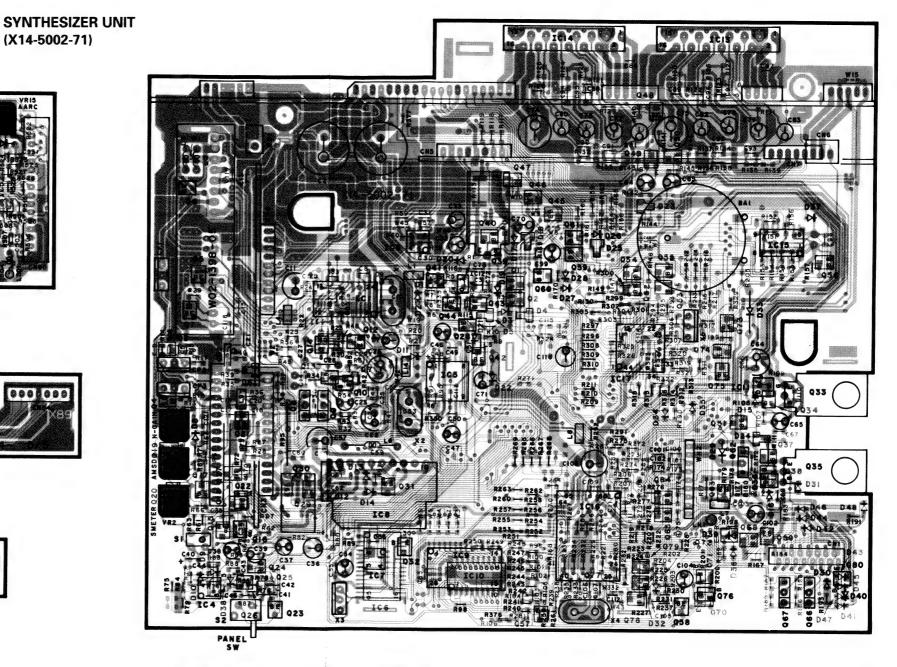


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12		3P		42	40
13		2R		43	3Q
14		2Q		44	3P
15		38		48	2R
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52		3M		52	3R
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	15	50	-	66	5S
-+	16	50		67	5S
-	17	50		68	5R
	18	50		69	
	19	40	-	70	5S 5R
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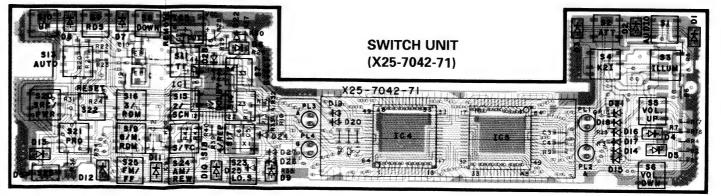






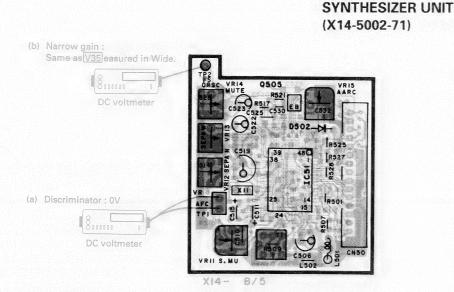


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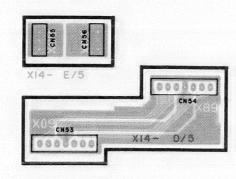


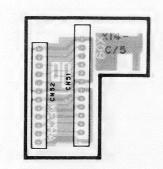
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5		7R					
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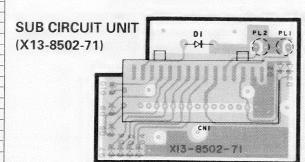
PC BOARD (FOIL SIDE VIEW)

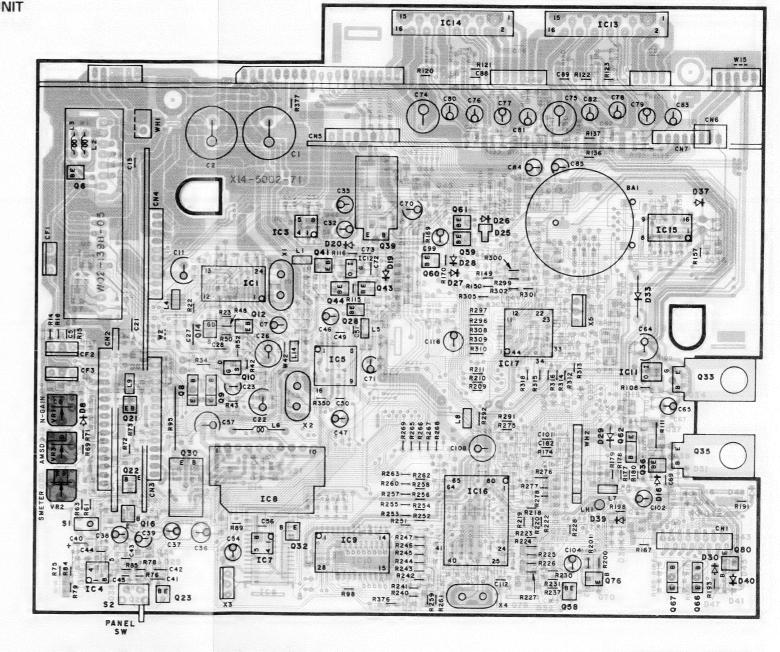


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5		4P		35	4S
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8		5P		38	48
9		5Q		39	30
10		5Q		40	30
11		4S		41	3P
12		3P		42	40
13		2R		43	30
14		2Q		44	3P
15		3S		48	2R
16		5Q		49	2C
17		4R		50	2C
51		3M		51	4R
52		3M		52	3R
- 52	1	30		53	3R
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	3	30		54	3R
	4	40		55	3R
		40		56	3S
	5	30		57	50
	6	30		58	5R
	7 8	30		59	30
	9	40	770-4	60	30
	-	40		61	30
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	24	50		75	4R
	25	50		76	5R
	26	50		77	5R
	27	40		80	5S
	28	3Q		502	2M
	29	50		503	3M
	30	50		505	2M

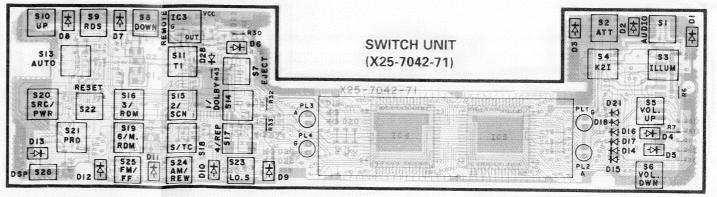








Q



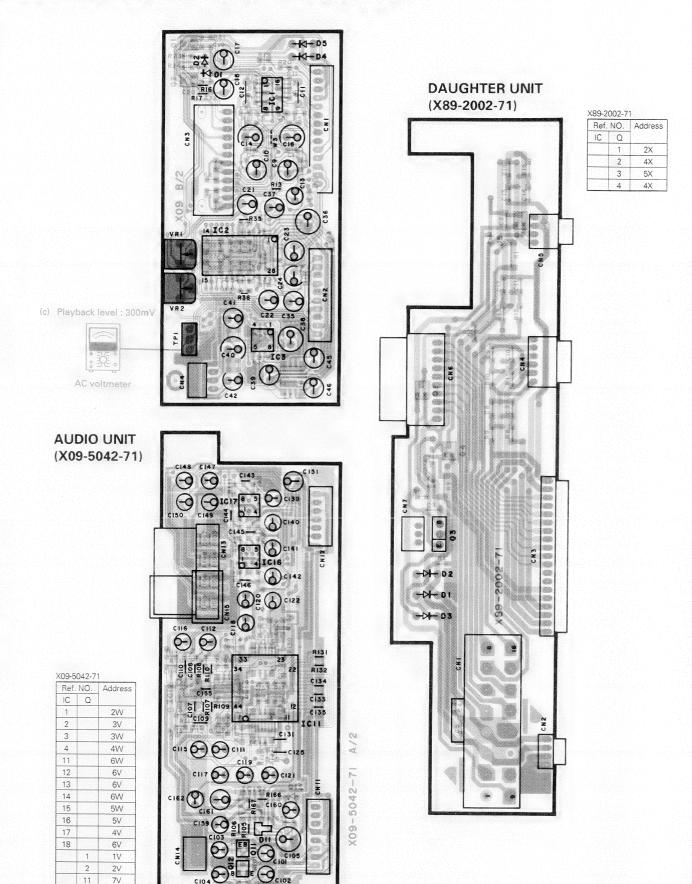
Ref.	No.	Address
IC	Q	
1		6P
2		70
3		6P
4		70
5		7R
	1	60
	2	60

PC BOARD (COMPONENT SIDE VIEW)

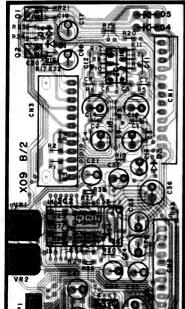
U

12

7V



Refer to the schematic diagram for the values of resistors and capacitors.

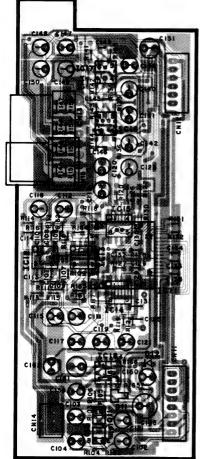


DAUGHTER UNIT (X89-2002-71)

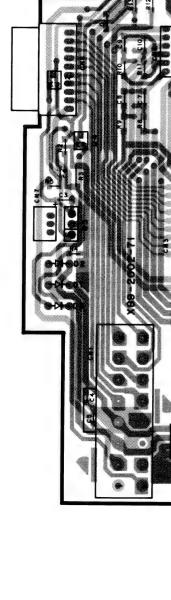
(c) Playback level : 300mV

AUDIO UNIT (X09-5042-71)

AC voltmeter



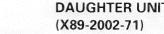
X09-5042-71 A/2

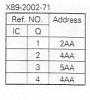


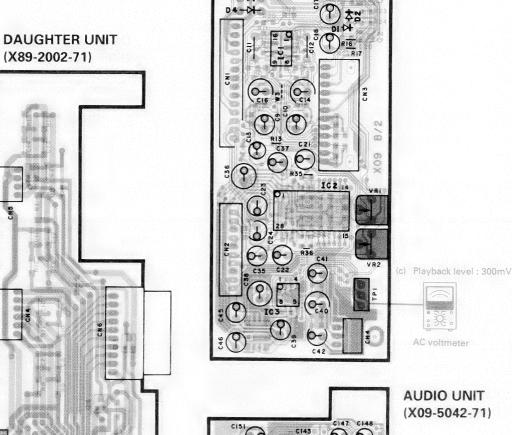
X09-5	042-7	1
Ref.	NO.	Address
IC	Q	
1		2W
2		3V
3		3W
4		4W
11		6W
12		6V
13		6V
14		6W
15		5W
16		5V
17		4V
18		6V
	1	1V
	2	2V
	11	7∨
	12	7V

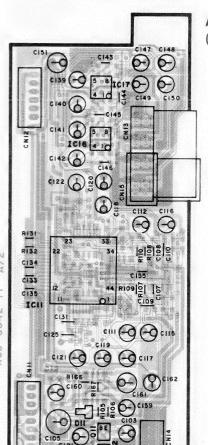
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)









AUDIO UNIT (X09-5042-71)

X09-5042-71

Ref.	NO.	Address
IC	Q	
1		2AB
2		3AC
3		ЗАВ
4		4AB
11		6AB
12		6AC
13		6AC
14		6AB
15		5AB
16		5AC
17		4AC
18		6AC
	1	1AC
	2	2AC
	11	7AC
	12	7AC

A/2

D2 -I4-

6

Refer to the schematic diagram for the values of resistors and capacitors.

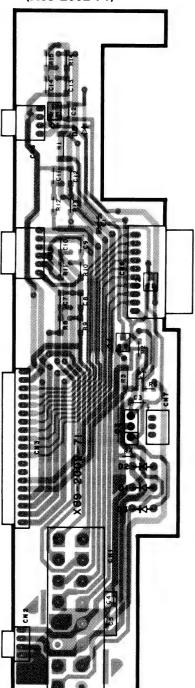
PC BOARD (FOIL SIDE VIEW)

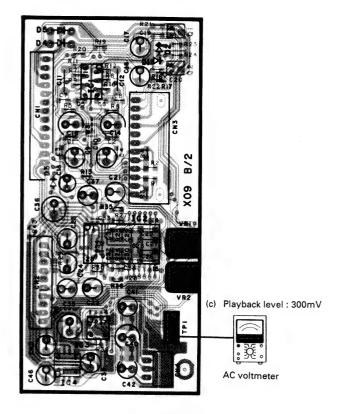
DAUGHTER UNIT (X89-2002-71)

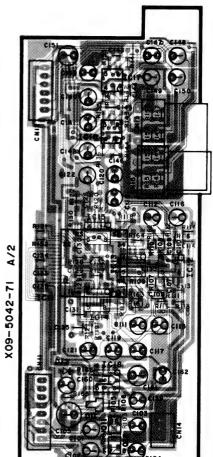
X89-2002-71

Ref. NO.	Address
IC	Q
1	2AA
2	4AA
3	5AA

4AA



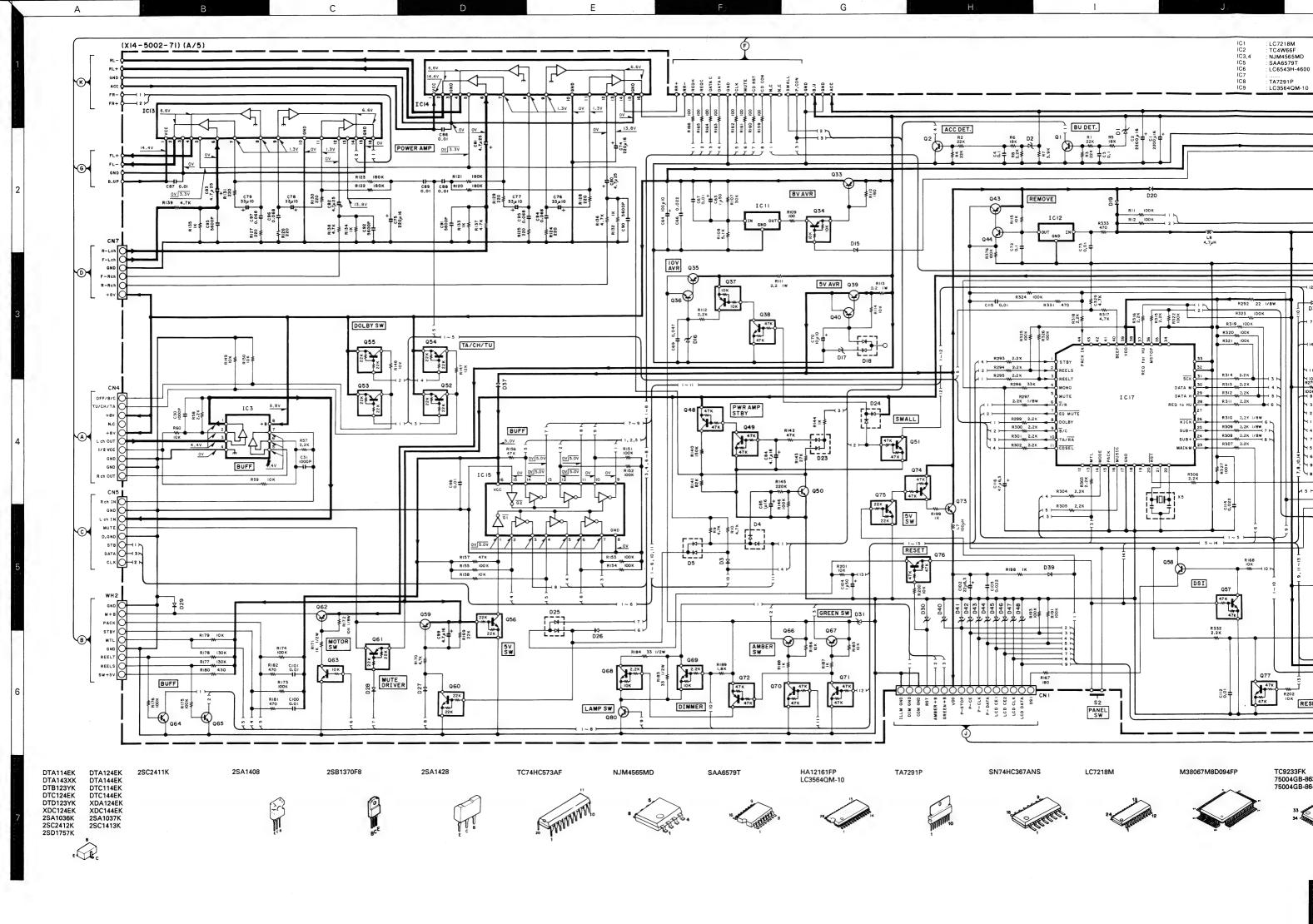


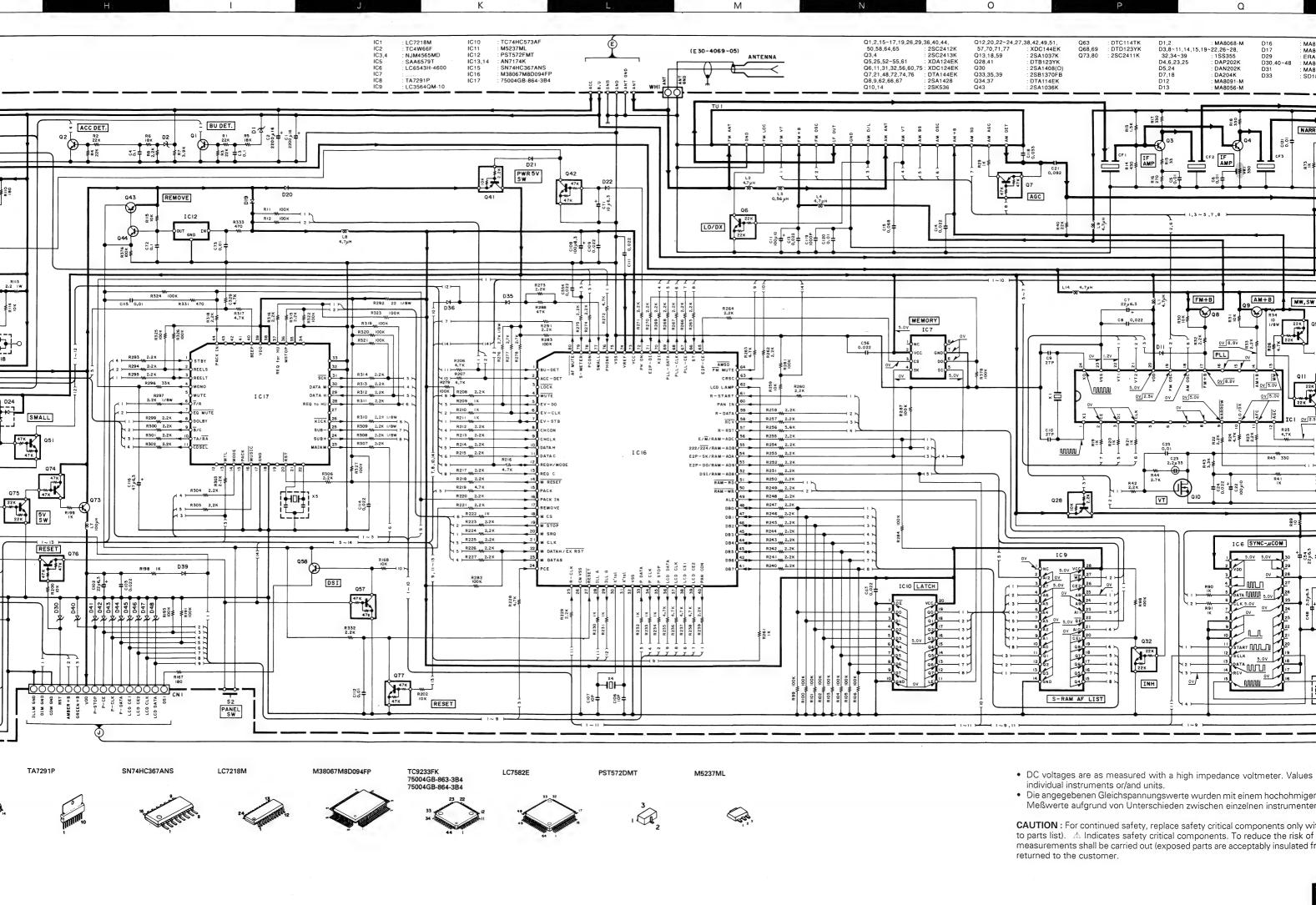


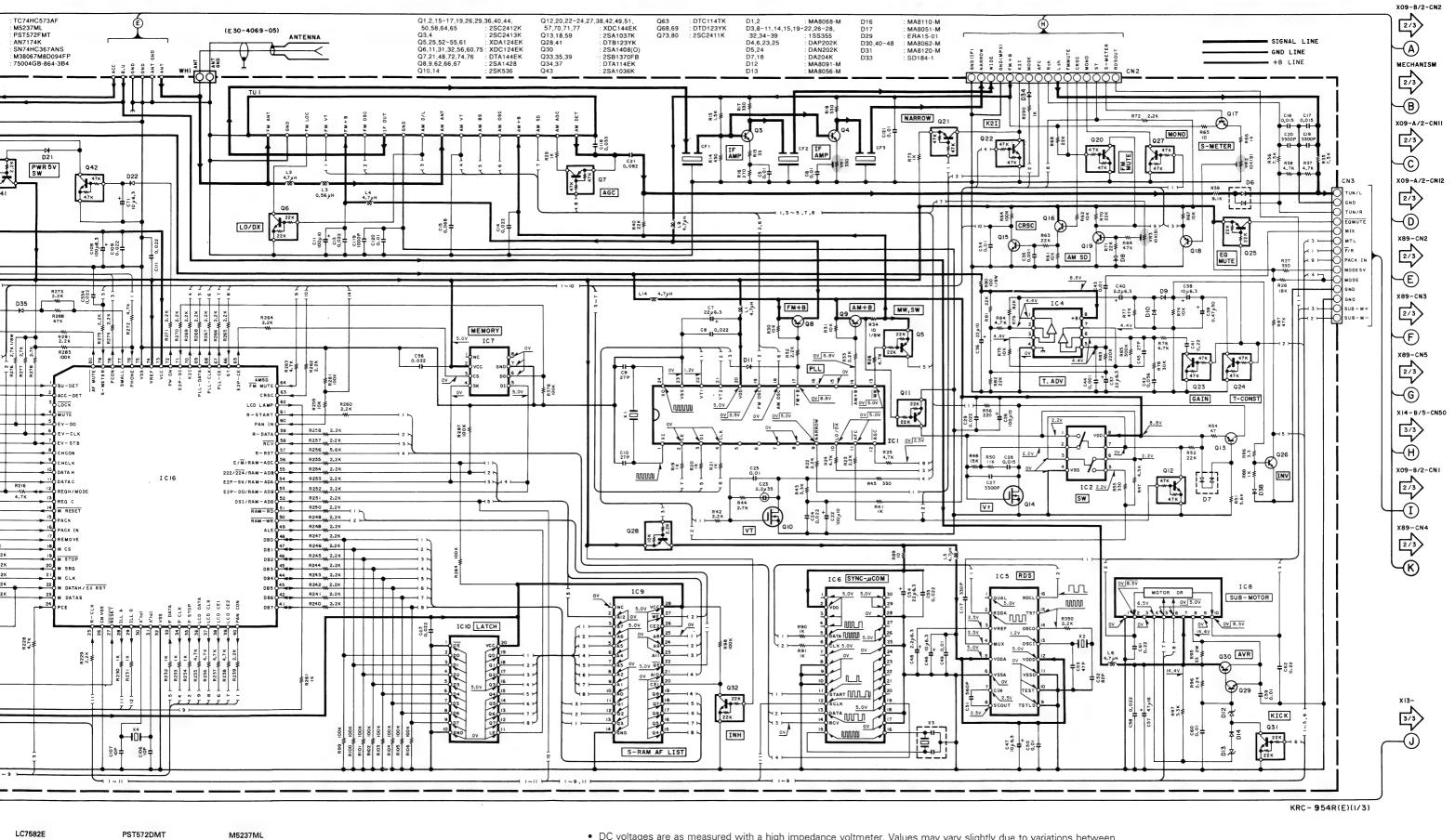
AUDIO UNIT (X09-5042-71)

X09-5042-71

Ref.	NO.	Address
IC	Q	
1		2AB
2		3AC
3		3AB
4		4AB
11		6AB
12		6AC
13		6AC
14		6AB
15		5AB
16		5AC
17		4AC
18		6AC
	1	1AC
	2	2AC
	11	7AC
	12	7AC







0

3

Μ

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

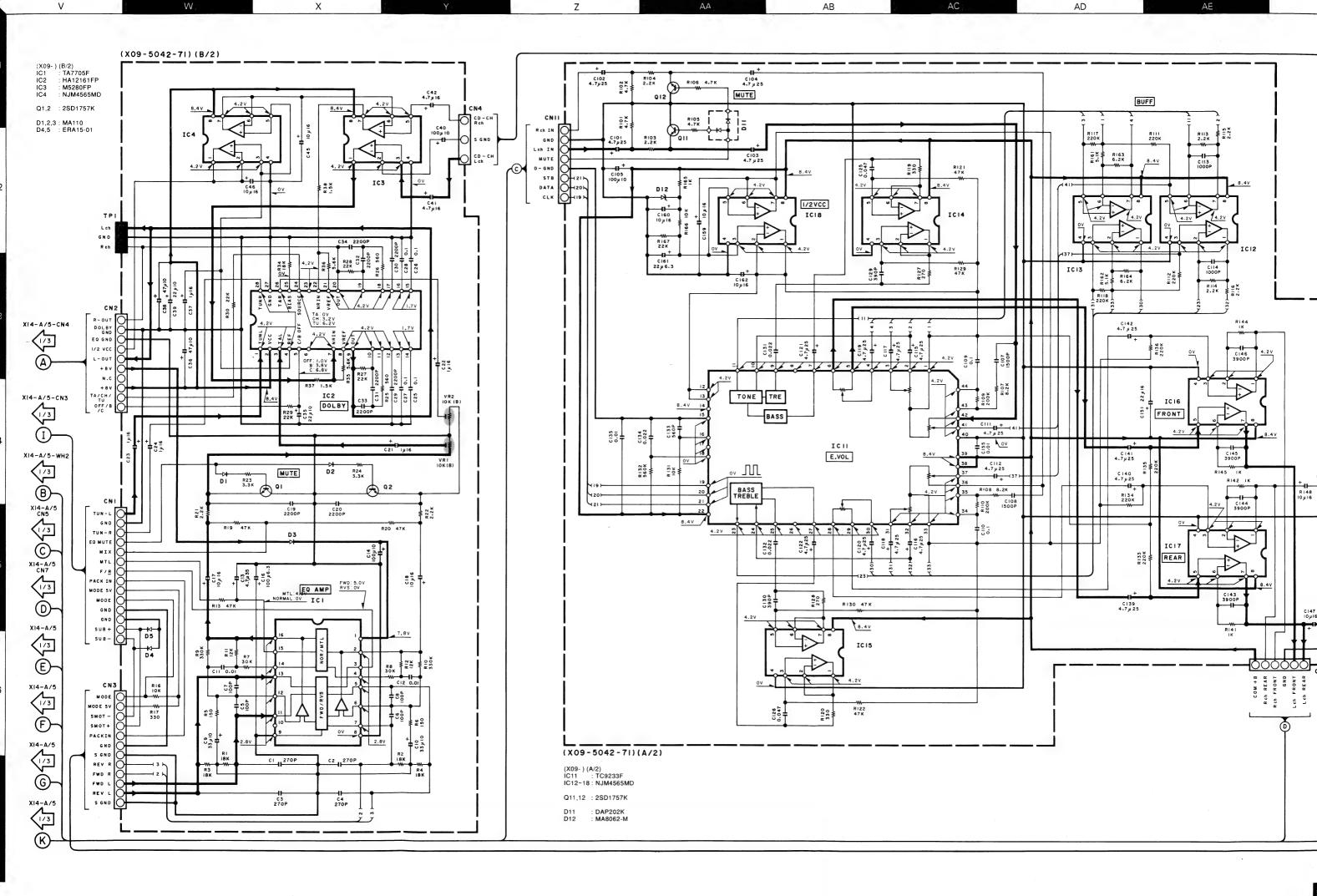
Q

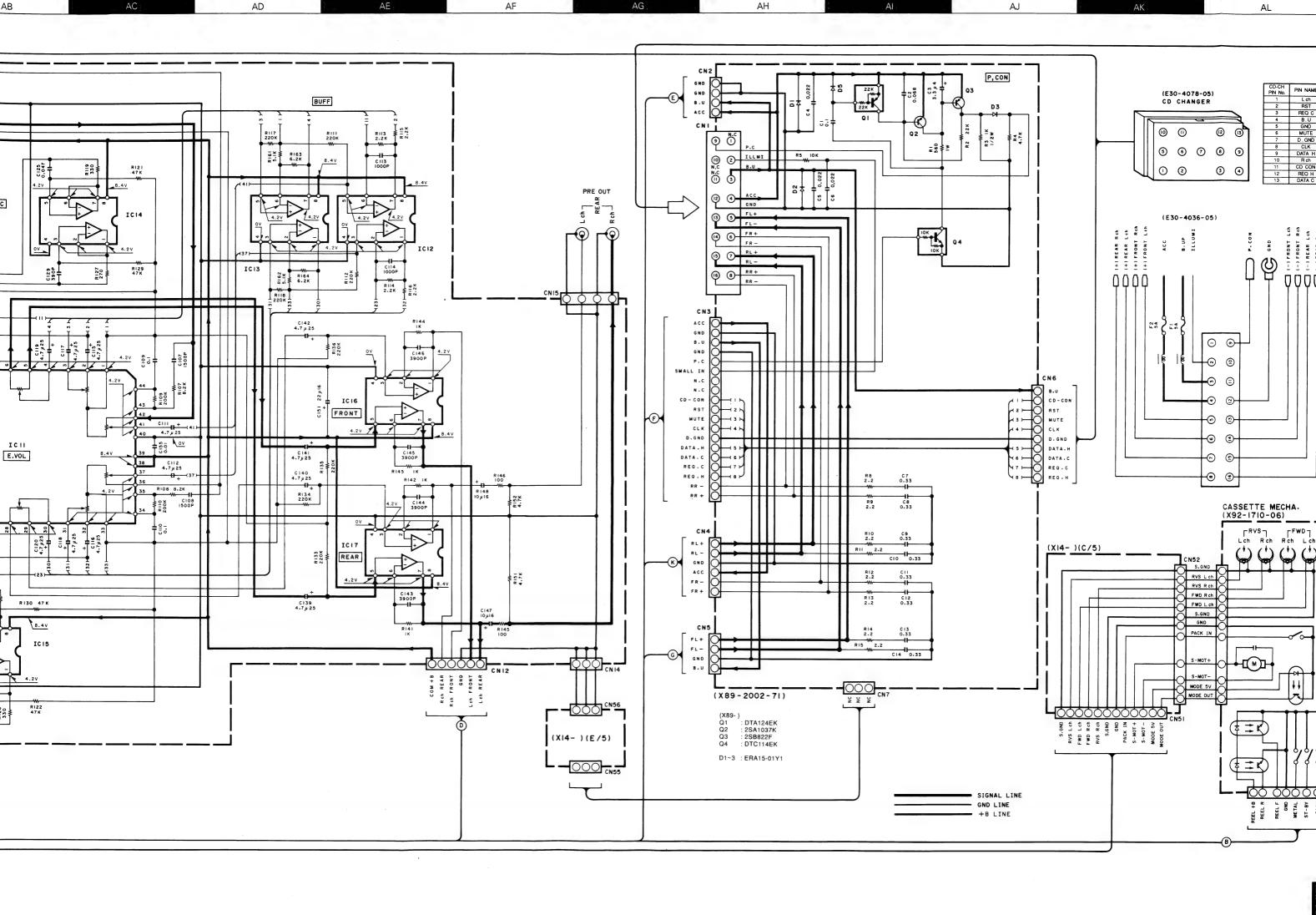
· Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen instrumenten oder Geräten u.U. geringfügig.

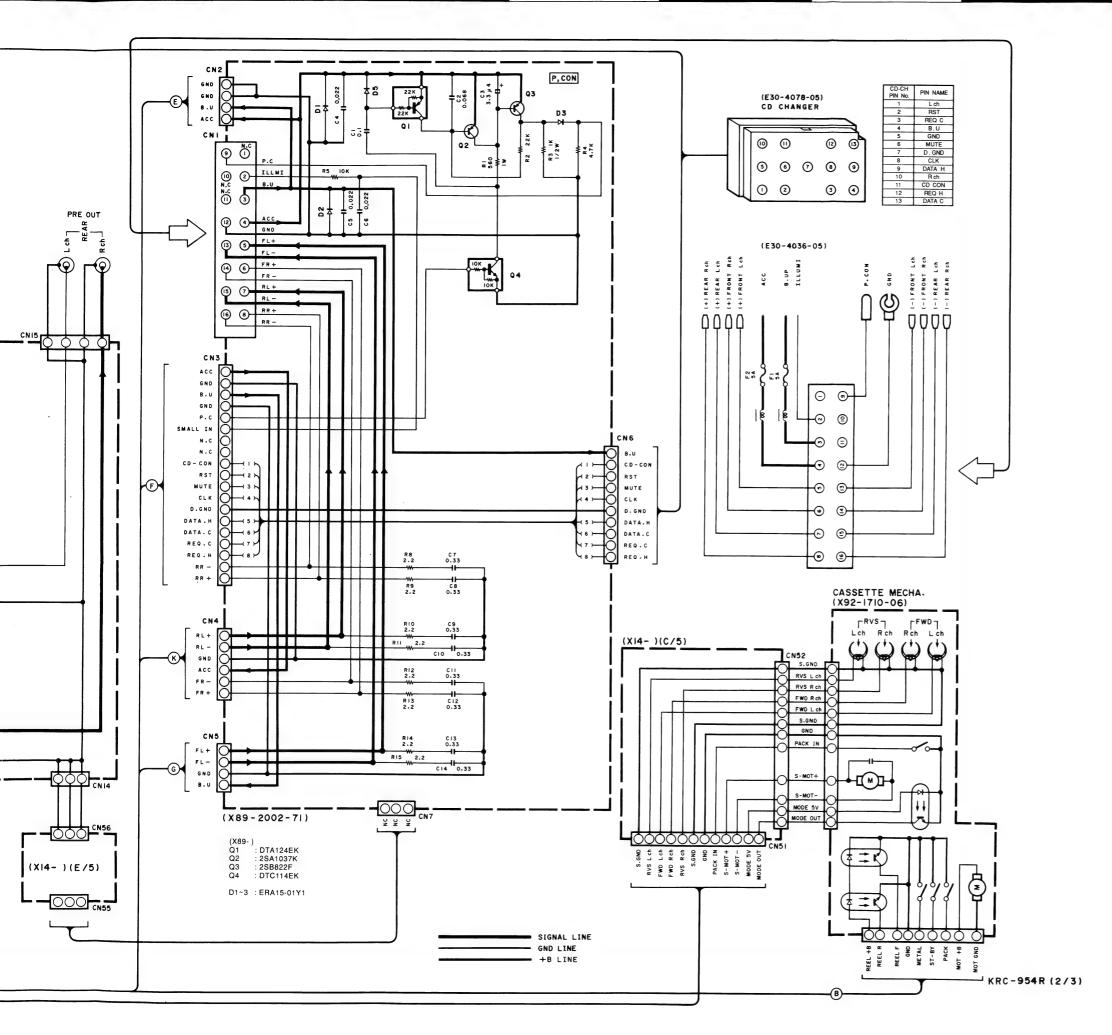
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). 🛆 Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



U



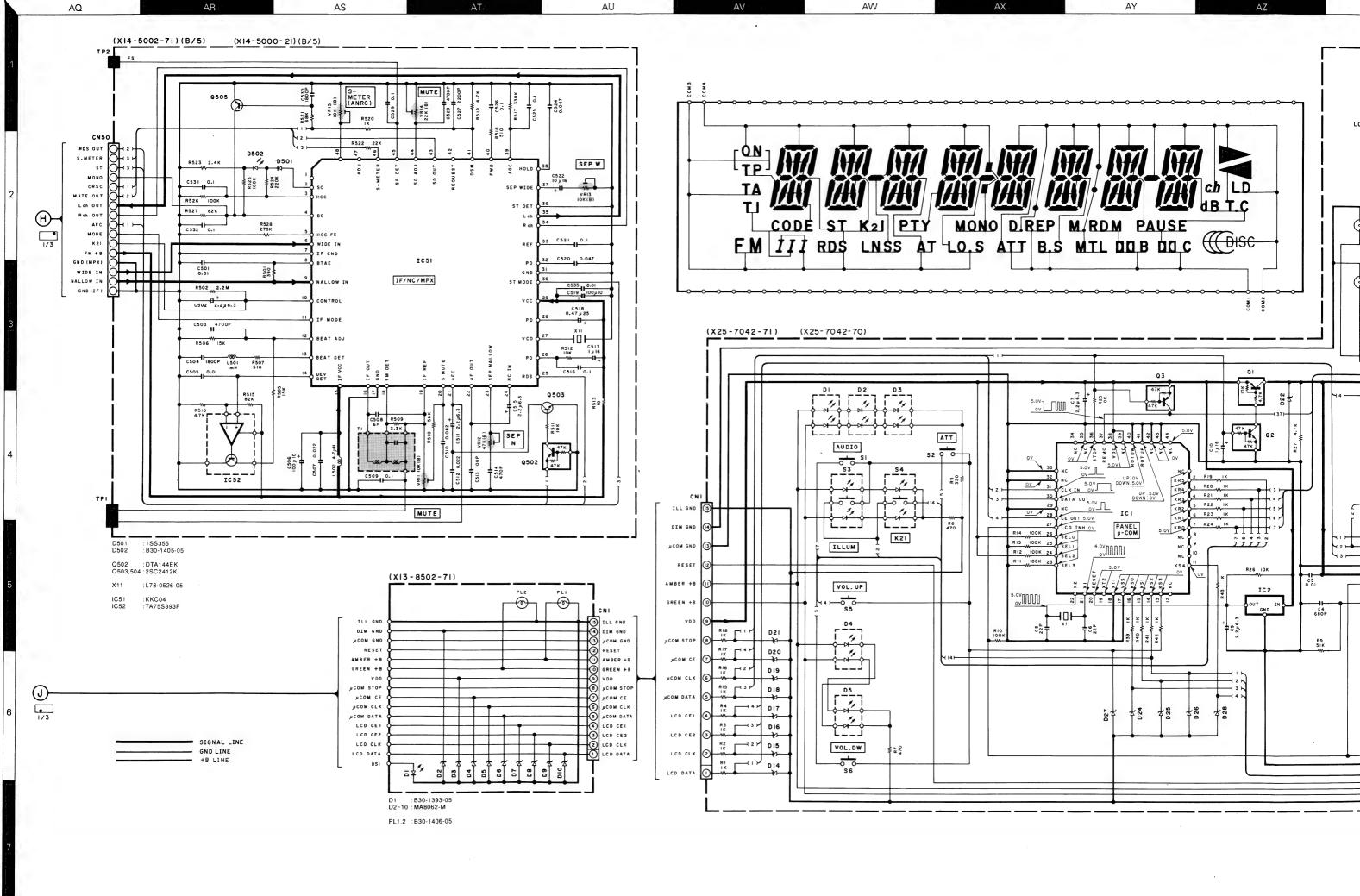


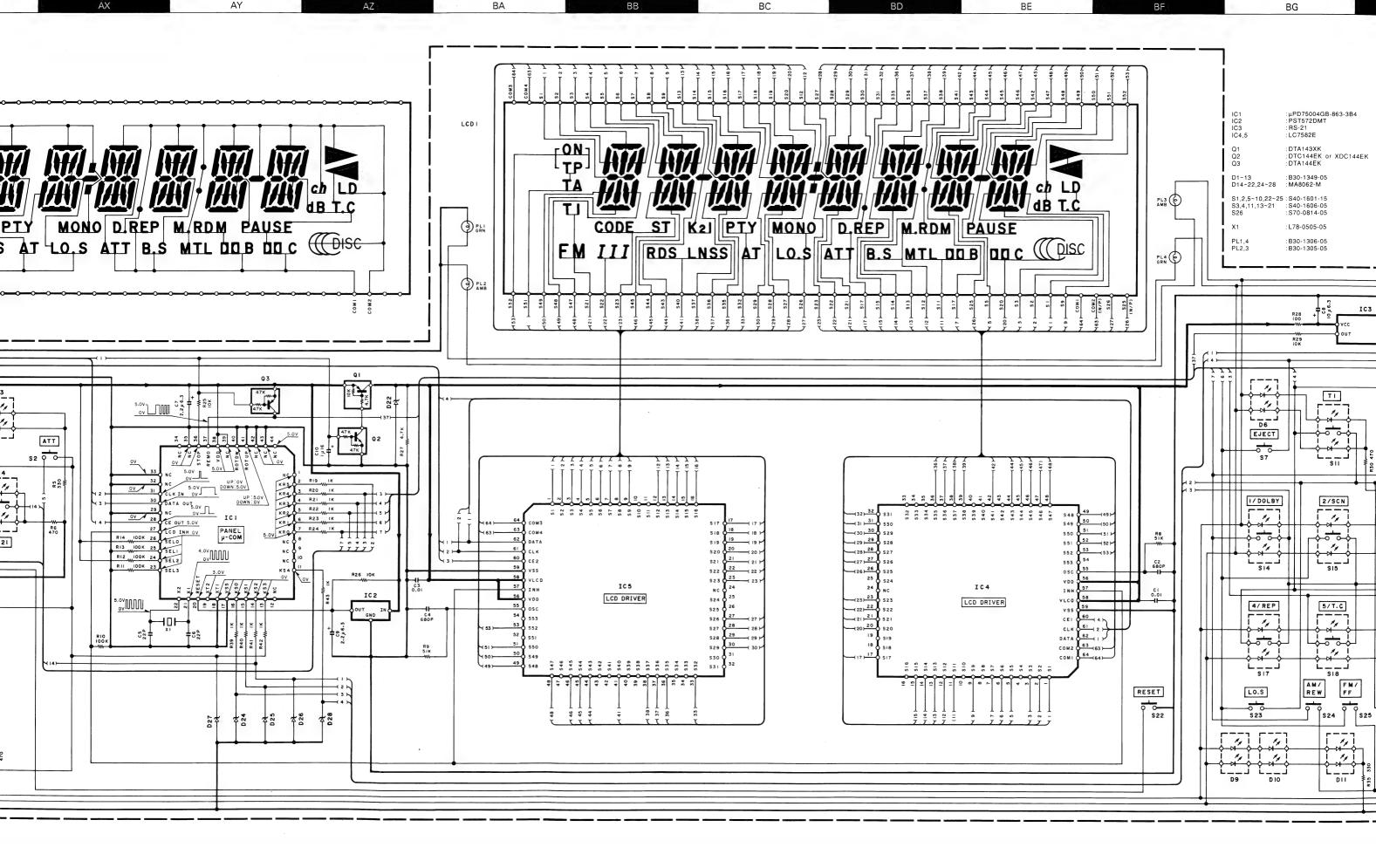


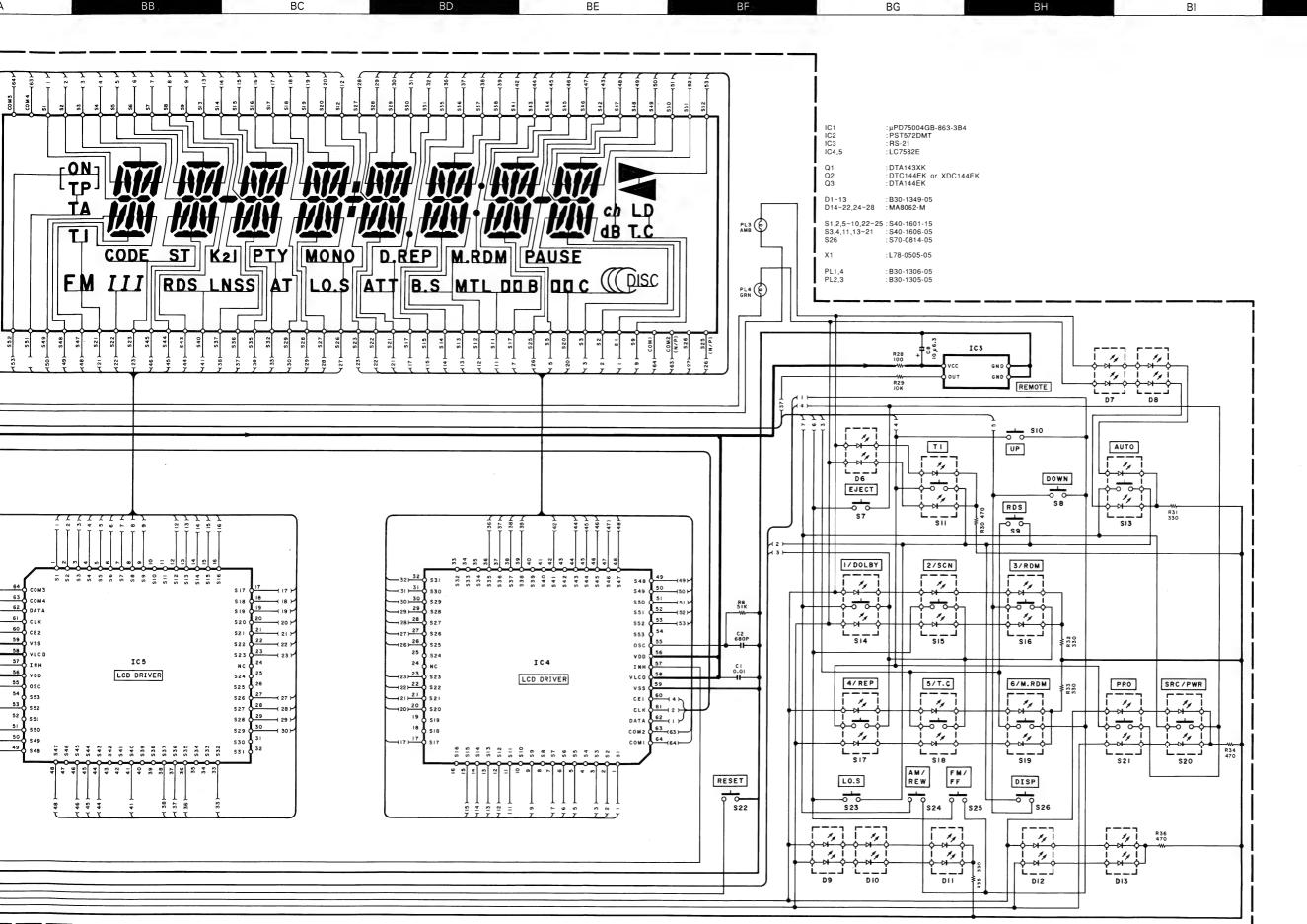
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen instrumenten oder Geräten u.U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). A Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.DOLBY and the double-D symbol are tradmarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.









DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and

ВК

units.
• Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen instrumenten oder Geräten u.U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). △ Indicates safety critical components. To reduce the risk of electric shock, leakage-currentor resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

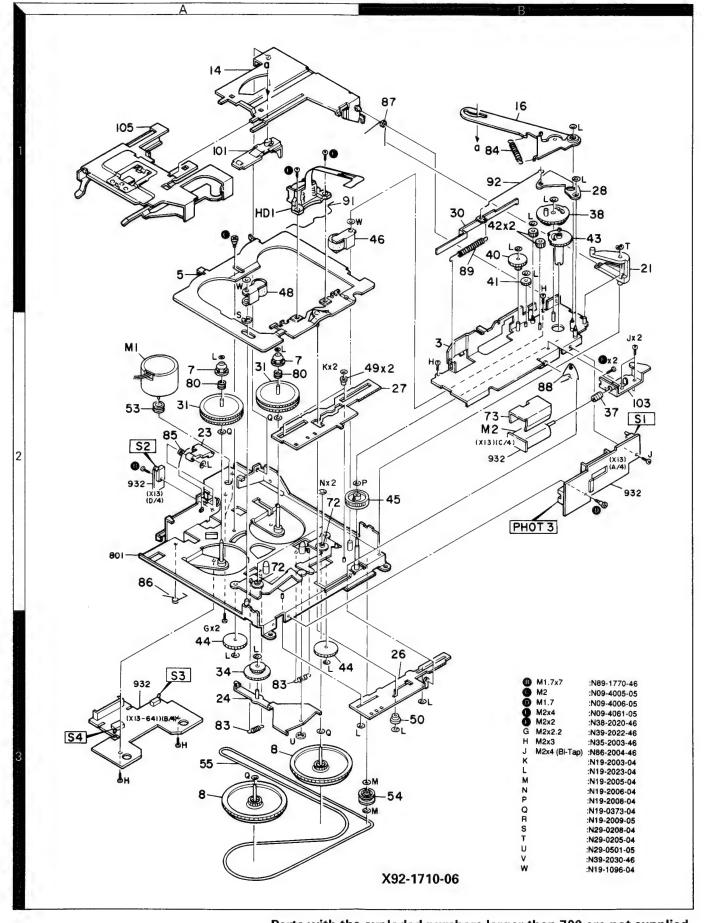
KRC-1054R/954R/927 (3/3)

KRC-954R KENWOOD

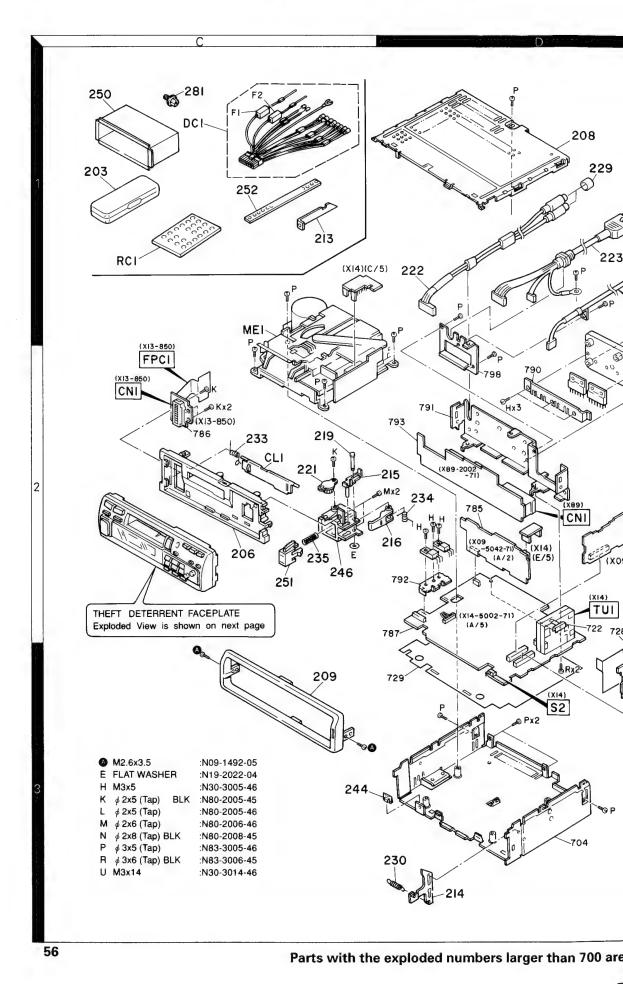
KRC-954R KRC-954R

EXPLODED VIEW (UNIT)

EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied.



EXPLODED VIEW (UNIT)

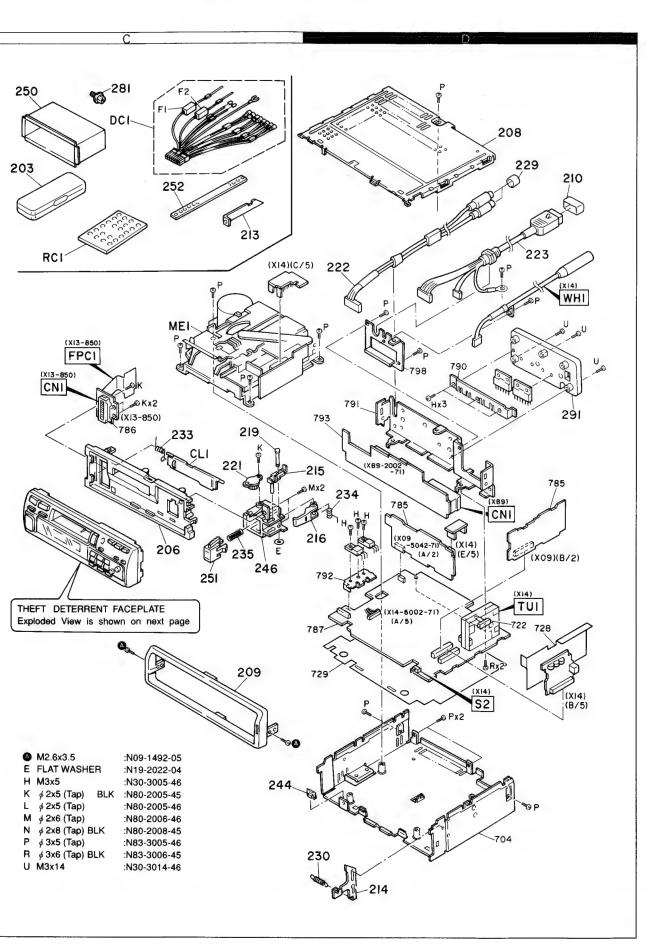
KRC-954R KRC-95 **EXPLODED VIEW (FACEPLATE)**

* New Parts Parts without P Teile ohne Parts

> E: Europe W K: U.S.A. and Ca

58

294 LCDI | 272 | E | 258 268 :N80-2005-46 N φ 2x8 (Tap) BLK



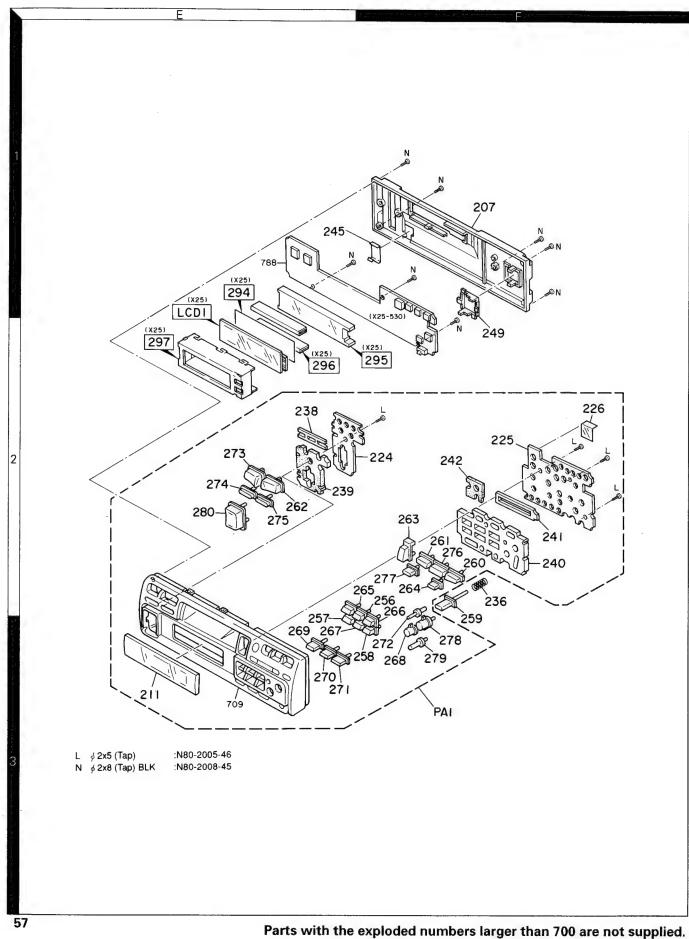
Parts with the exploded numbers larger than 700 are not supplied.

57

Parts with the exploded numbers larger than 700 are not supplied.

KRC-954R KRC-954R

EXPLODED VIEW (FACEPLATE)



upplied.

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New	Parts No.	Description	Desti-	Re-
参照番号	位 置	新	部品番号	部品名/規格	nation 仕 向	mari 備者
			К	RC-954R		-
203 206 207 208 CL1	1C 2C 1F 1D 2C	* *	A02-1421-01 A22-1212-11 A46-1213-01 A52-0656-02 A53-1563-03	PLASTIC CABINET SUB PANEL REAR COVER TOP COVER CASSETTE LID		
PA1 RC1	3F 1C	*	A64-0049-02 A70-0827-05	PANEL ASSY REMOTE CONTROLLER ASSY		
209 210 211 -	3C 1D 3E	*	B07-2034-01 B09-0062-05 B10-1543-03 B46-0100-20 B46-0608-04	ESCUTCHEON CAP FRONT GLASS WARRANTY CARD ID CARD		
- - -		* * *	B58-1217-04 B64-0245-00 B64-0246-00 B64-0247-00	CAUTION CARD INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL		
213 214 215 216 219	1C 3D 2C 2C 2C		D10-2548-14 D10-2684-24 D10-2776-14 D10-2778-24 D21-2127-04	LEVER LEVER LEVER ASSY ARM SHAFT		
221	2C		D39-0211-05	DAMPER		
222 223 DC1	1 D 1 D 1 C	* * *	E30-4034-05 E30-4078-05 E30-4036-05	AUDIO CORD CORD WITH CONNECTOR DC CORD ASSY		
224 225 226 229 F1, 2	2E 2F 2F 1D		F09-1211-04 F09-1212-03 F09-1213-04 F29-0049-05 F06-5024-05	SHEET SHEET SHEET INSULATING COVER FUSE (5A)		
230 233 234 235 236	3D 2C 2D 2C 2F		G01-2040-04 G01-2525-04 G01-2632-24 G01-2633-04 G01-2645-04	EXTENSION SPRING TORSION COIL SPRING TORSION COIL SPRING COMPRESSION SPRING COMPRESSION SPRING		
238 239 240 241 242	2E 2E 2F 2F 2F 2F		G11-1585-04 G11-1586-04 G11-1589-03 G11-1590-03 G11-1591-03	CUSHION CUSHION CUSHION CUSHION CUSHION		
- - -		*	H10-4431-02 H25-0329-04 H25-0334-04 H25-0337-04 H54-0016-04	POLYSTYRENE FOAMED FIXTURE PROTECTION BAG (280X450X0.03) PROTECTION BAG (125X250X0.03) PROTECTION BAG (180X300X0.03) ITEM CARTON CASE		
-		*	H64-0020-04	OUTER CARTON CASE		
244 245 246 249 250	3D 1F 2C 1F 1C		J19-4431-14 J19-4435-04 J19-4466-22 J21-7409-04 J21-7425-11	LEAD HOLDER LEAD HOLDER HOLDER MOUNTING HARDWARE MOUNTING HARDWARE		

PARTS LIST

E : Europe **W** : Without Europe **P** : Canada **X** : Australia

K: U.S.A. and Canada M: Without Europe, U.S.A. and Canada

× New Parts

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

KRC-954R

Ref. No.	Address		Part	s No.	Description	Desti- Re-
参照番号	位 置	Parts 新	部品	番号	部品名/規格	mation mark 仕 向備者
251 252	2C 1C		J52-003 J54-005		MAGNET CATCH STAY	
256 257 258 259 260	2F 3E 3F 3F 2F	-	K24-117 K24-117 K24-118 K24-119 K24-125	9-04 1-04 7-04	KNOB (2, SCN) KNOB (4, REP) KNOB (6, M.RDM) KNOB (OPEN) KNOB (>> +)	
261 262 263 264 265	2F 2E 2F 2F 2F		K24-125 K24-126 K24-126 K24-127 K24-127	2-04 6-04 0-04	KNOB (- <<) KNOB (ATT) KNOB (EJECT) KNOB (AUTO) KNOB (1, B.CNR)	
266 267 268 269 270	3F 3E 3F 3E 3E		K24-127 K24-127 K24-127 K24-127 K24-127	3-04 4-04 5-04	KNOB (3, RDM) KNOB (5, D.S) KNOB (PRO) KNOB (LO.S) KNOB (-AM)	
271 272 273 274 275	3E 3F 2E 2E 2E	* * *	K24-127 K24-127 K24-127 K24-128 K24-128	8-04 9-04 0-04	KNOB (FM+) KNOB (RESET) KNOB (AUDIO) KNOB (ILLUM) KNOB (K2I)	
276 277 278 279 280	2F 2F 3F 3F 2E	* *	K24-128 K24-128 K24-128 K24-128 K25-062	4-04 6-04 7-04	KNOB (RDS) KNOB (TI) KNOB (SRC) KNOB (DISP) KNOB (VOL)	
281 A E H K	1C 3C 2C 2D 2C		N09-188 N09-149 N19-202 N30-300 N80-200	2-05 2-04 5-46	SEMS (MACHINE SCREW) MACHINE SCREW (2.6X3.5) FLAT WASHER PAN HEAD MACHINE SCREW PAN HEAD TAPTITE SCREW	
L M N P	2F 2C 1F 1C,3D		N80-200 N80-200 N80-200 N83-300	6-46 8-45	PAN HEAD TAPTITE SCREW PAN HEAD TAPTITE SCREW PAN HEAD TAPTITE SCREW PAN HEAD TAPTITE SCREW	
ME1	2C	*	X92-171		MECHANISM ASSY IT (X09-5042-71)	
C1 -4 C5 -8 C9 ,10 C11 ,12 C13			CC73FSL CC73FCH CE04CW0 C91-204 C90-259	1H821J 1H101J J330M 0-05	CHIP C	,
C14 C16 C17 ,18 C19 ,20 C21 -24			CE04CW1 CE04CW0 C90-253 C93-104 C90-253	J101M 6-05 4-05	ELECTRO 100UF 10WV ELECTRO 100UF 6.3WV ELECTRO 10UF 16WV CERAMIC 2200PF K ELECTRO 1UF 16WV	
C25 -28 C29 -34 C35 C36 C37			CK73EB1 C93-104 CE04CW1 CE04CW1 CE04CW1	4-05 A220M A470M	CHIP C 0.10UF K CERAMIC 2200PF K ELECTRO 22UF 10WV ELECTRO 47UF 10WV ELECTRO 1.0UF 50WV	

 $\label{eq:continuous} \begin{array}{lll} \textbf{E}: \text{Europe} & \textbf{W}: \text{Without Europe} & \textbf{P}: \text{Canada} & \textbf{X}: \text{Australia} \\ \textbf{K}: \text{U.S.A. and Canada} & \textbf{M}: \text{Without Europe, U.S.A. and Canada} \end{array}$

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AUDIO UNIT (X09-5042-71)

Ref. No.	Address	New Parts	Parts N	No.			Des	criptio	n		Desti-	Re-
参照番号	位 置	新	部品書	号		部	品	名/敖	見格		nation 仕 向	mark 備考
C38 C39 C40 C41 ,42 C45 ,46			CE04CW1A47 CE04CW1A22 CE04CW1A10 C90-2535-0 C90-2536-0	20M 01M 05	ELECTRO ELECTRO ELECTRO ELECTRO ELECTRO			47UF 22UF 100UF 4.7UF 10UF		10WV 10WV 10WV 16WV 16WV		
C101-104 C105 C107,108 C109,110 C111,112			C90-2555-0 C90-2550-0 CK73FB1H15 CK73EB1E10 C90-2555-0)5 52K)4K	ELECTRO ELECTRO CHIP C CHIP C ELECTRO			4.7UF 100UF 1500PF 0.10UF 4.7UF	; ; ;	25WV 10WV K K 25WV		
C113,114 C115-122 C125,126 C129,130 C131			CC73FSL1H1 C90-2555-0 CK73EB1H47 CK73FB1H39 CK73EB1E22	05 73K 91K	CHIP C ELECTRO CHIP C CHIP C CHIP C			1000PF 4.7UF 0.047U 390PF 0.022U	JF I	J 25WV K K K		
C132 C133 C134 C135 C139-142			CK73FB1H22 CK73FB1H56 CK73FB1H22 CK73FB1H10 C90-2555-0	31K 23KTA 33K	CHIP C CHIP C CHIP C CHIP C ELECTRO			0.022U 560PF 0.022U 0.010U 4.7UF	JF I JF I	K K K K C 25WV		
C143-146 C147,148 C151 C155 C159,160			CK73FB1H39 C90-2554-C C90-2553-C CK73FB1H1C C90-2554-C)5)5)3K	CHIP C ELECTRO ELECTRO CHIP C ELECTRO		:	3900PF 10UF 22UF 0.010U 10UF	IF H	(16WV 5.3WV (16WV		
C161 C162			C90-2549-0 C90-2554-0		ELECTRO ELECTRO			22UF 10UF		6.3WV 16WV		
CN1 CN2 CN3 CN4 CN11		*	E40-9102-0 E40-9098-0 E40-5461-0 E40-3261-0 E40-9096-0)5)5)5	SOCKET F SOCKET F SOCKET F PIN ASSY SOCKET F	OR OR	PI	N ASSY N ASSY	,			
CN12 CN14 CN15 TP1		*	E40-9094-0 E40-9091-0 E40-3301-0 E40-9218-0)5)5	SOCKET F SOCKET F PIN ASSY PIN ASSY	ØR	PI	N ASSY N ASSY				
R1 -4 R5 ,6 R7 ,8 R9 ,10 R11 ,12			RK73FB2A39 RK73FB2A15 RK73FB2A30 RK73FB2A33 RK73FB2A12	1J 13J 14J	CHIP R CHIP R CHIP R CHIP R		100	39K 150 30K 330K 12K		1/10W		
R13 R16 R17 R19 ,20 R21 ,22			RK73FB2A47 RK73FB2A10 RK73FB2A33 RK73FB2A47 RK73FB2A22	3J 1J 3J	CHIP R CHIP R CHIP R CHIP R		1	17K 0K 330 17K 2.2K	J J J	1/10W 1/10W 1/10W		
R23 ,24 R25 ,26 R27 -30 R34 R35 ,36			RK73FB2A33 RK73FB2A56 RK73FB2A22 RK73FB2A18 RK73FB2A56	1J 3J 3J	CHIP R CHIP R CHIP R CHIP R		2	3.3K 660 22K 8K 5.6K	J J J	1/10W 1/10W 1/10W		
R37 ,38 R101,102 R103,104			RK73FB2A15 RK73FB2A47 RK73FB2A22	2J	CHIP R CHIP R CHIP R		4	.5K .7K 2.2K	J J	1/10W		

E : Europe W : Without Europe P : Canada X : Australia

K: U.S.A. and Canada M: Without Europe, U.S.A. and Canada

PARTS LIST

× New Parts

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Teile ohne ${\bf Parts\ No.}$ werden nicht geliefert.

AUDIO UNIT (X09-5042-71)

Ref. No.	Address		Parts No.	Description	Desti- Re-
参照番号	位 置	Parts 新	部品番号	部品名/規格	nation marks 仕 向 備考
R105,106 R107,108 R109,110 R111,112 R113-116			RK73FB2A472J RK73FB2A822J RK73FB2A204J RK73FB2A224J RK73FB2A222J	CHIP R 4.7K J 1/10W CHIP R 8.2K J 1/10W CHIP R 200K J 1/10W CHIP R 220K J 1/10W CHIP R 2.2K J 1/10W	
R117,118 R119,120 R121 R122 R127,128			RK73FB2A224J RK73FB2A331J RK73FB2A473J RK73EB2B473J RK73FB2A271J	CHIP R 220K J 1/10W CHIP R 330 J 1/10W CHIP R 47K J 1/10W CHIP R 47K J 1/8W CHIP R 270 J 1/10W	
R129,130 R131 R132 R133-136 R141-144			RK73FB2A473J RK73FB2A103J RK73FB2A564J RK73FB2A224J RK73FB2A102J	CHIP R 47K J 1/10W CHIP R 10K J 1/10W CHIP R 560K J 1/10W CHIP R 220K J 1/10W CHIP R 1.0K J 1/10W	
R145,146 R151,152 R161,162 R163,164 R165			RK73FB2A101J RK73FB2A472J RK73FB2A512J RK73FB2A622J RK73FB2A102J	CHIP R 100 J 1/10W CHIP R 4.7K J 1/10W CHIP R 5.1K J 1/10W CHIP R 6.2K J 1/10W CHIP R 1.0K J 1/10W	
R166 R167 VR1 ,2 W3			RK73FB2A103J RK73FB2A223J R12-3100-05 R92-2053-05	CHIP R 10K J 1/10W CHIP R 22K J 1/10W TRIMMING POT.(10K 97) CHIP R 0 J 1/8W	
D1 -3 D1 -3 D4 ,5 D11 D12			MA110 1SS355 ERA15-01 DAP202K MA8062-M	DIODE DIODE DIODE DIODE ZENER DIODE	
IC1 IC2 IC3 IC4 IC11			TA7705F HA12161FP M5280FP NJM4565MD TC9233FK	IC(PREAMP FOR AUTO REVERSE) IC IC(ISO AMP) IC(OP AMP X2) IC	
IC12-18 Q1 ,2 Q11 ,12			NJM4565MD 2SD1757K 2SD1757K	IC(OP AMP X2) TRANSISTOR TRANSISTOR	
, , , , ,				T UNIT (X13-6410-03)	
C1			CF92V1H224J	MF 0.22UF J	
CN1 CN2 CN3 J1 ,2	:		E40-9100-05 E40-5065-05 E40-9115-05 E31-8052-05	SOCKET FOR PIN ASSY PIN ASSY FLAT CABLE CONNCTOR LEAD WIRE	
S1 S2 -4			S40-1140-05 S46-1601-05	PUSH SWITCH LEAF SWITCH	
PH1 ,2 PH3			T95-0201-05 T95-0202-05	OPTO ISOLATOR OPTO ISOLATOR	
				UNIT (X13-8502-71)	
D1 PL1 ,2		*	B30-1393-05 B30-1406-05	LED LAMP	
CN1	2C		E58-0818-05	RECTANGULAR RECEPTACLE	

E : Europe W : Without Europe P : Canada X : AustraliaK : U.S.A. and Canada M : Without Europe, U.S.A. and Canada

* New Parts

PARTS LIST

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SUB-CIRCUIT UNIT (X13-8502-71)

Ref. No.	Address		Parts No.	Description	Desti-	Re
参照番号	位 置	Parts 新	部品番号	部品名/規格		mar 備
FPC1	2C		J84-0037-03	FLEXIBLE PRINTED WIRING BOARD		
D2 -10			MA8062-M	ZENER DIODE		
		_	SYNTHESIZE	R UNIT (X14-5002-71)	*	•
D502		*	B30-1405-05	LED		
C1 C2 C3 ,4 C5 ,6		*	C90-2791-05 C90-2688-05 CK73EB1H104K CK73FB1H103K CE04CW0J220M	ALMINIUM ELECTROLYTIC C. ALMINIUM ELECTROLYTIC C. CHIP C 0.10UF K CHIP C 0.010UF K ELECTRO 22UF 6.3WV		
C8 C9 ,10 C11 C13 ,14 C15			CK73FB1H223KTA CC73FCH1H270J CE04CW1A101M CK73FB1H223KTA CK73EB1E683K	CHIP C 0.022UF K CHIP C 27PF J ELECTRO 100UF 10WV CHIP C 0.022UF K CHIP C 0.068UF K		
C17 ,18 C19 ,20 C21 C22 C23			CK73FB1H153KTA CK73FB1H332K CK73EB1E823K CE04CW1A101M C90-2525-05	CHIP C 0.015UF K CHIP C 3300PF K CHIP C 0.082UF K ELECTRØ 100UF 10WV NP-ELECT 2.2UF 35WV		
C24 C25 C26 C27 C28		*	CK73FB1H223KTA CK73FB1H103K CE04CW1A101M CF92V1H332J C91-2042-05	CHIP C 0.022UF K CHIP C 0.010UF K ELECTR® 100UF 10WV MF 3300PF J CERAMIC 0.015UF Z		
C29 C30 ,31 C34 C35 C36			CK73FB1H223KTA CC73FSL1H102J CK73FB1H103K CK73FB1H102K CE04CW1A220M	CHIP C 0.022UF K CHIP C 1000PF J CHIP C 0.010UF K CHIP C 1000PF K ELECTRO 22UF 10WV		
C37 C38 C39 C40 C41			CE04CW0J220M C90-2592-05 C90-2606-05 C92-0005-05 C93-0025-05	BLECTRO		
C42 C43 C44 C45 C46 ,47			CK73EB1E563K CK73FB1H103K CK73FB1H102K CC73FCH1H270J C90-2592-05	CHIP C 0.056UF K CHIP C 0.010UF K CHIP C 1000PF K CHIP C 27PF J ELECTRO 10UF 6.3WV		
C48 C49 ,50 C51 C52 C53			C92-0005-05 CK73FB1H103K CK73FB1H561K CC73FCH1H820J CC73FCH1H470J	ELECTRO 2.2UF 6.3WV CHIP C 0.010UF K CHIP C 560PF K CHIP C 82PF J CHIP C 47PF J		
C54 C55 ,56 C57 C58 C59 ,60			CE04CW0J220M CK73FB1H223KTA CE04CW1C470M CK73FB1H223KTA CK73FB1H103K	ELECTRO 22UF 6.3WV CHIP C 0.022UF K ELECTRO 47UF 16WV CHIP C 0.022UF K CHIP C 0.010UF K		
C61 ,62 C63 C64 C65			C93-0025-05 CK73FB1H223KTA CE04MW1A101M C90-2608-05	CERAMIC 0.22UF K CHIP C 0.022UF K ELECTRO 100UF 10WV ELECTRO 1.0UF 50WV		

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SYNTHESIZER UNIT (X14-5002-71)

Ref. No.	Address		Parts No.		De	scription		Desti-	Re-
参照番号	位 置	Parts 新	部品番号	部	品	名/規	格		mark
C66 C67 C69 C70 C71			CK73FB1H223KTA CK73FB1H103K CK73FB1E473KTA C90-2594-05 C90-2592-05	CHIP C CHIP C CHIP C ELECTRO ELECTRO		0.022UF 0.010UF 0.047UF 10UF 10UF	K K K 10WV 6.3WV		
C72 C73 C74 ,75 C76 -79 C80 -83			CK73EB1E104K CK73FB1H103K C90-1770-05 C90-2551-05 C90-2555-05	CHIP C CHIP C ELECTRO ELECTRO ELECTRO		0.10UF 0.010UF 220UF 33UF 4.7UF	K K 16VW 10WV 25WV		
C84 C85 C86 -89 C90 -93 C94 -97			C90-2595-05 C90-2532-05 CK73FB1H103K CK73FB1H562K CK73EB1E683K	ELECTRO ELECTRO CHIP C CHIP C CHIP C		4.7UF 1UF 0.010UF 5600PF 0.068UF	16WV 16WV K K K		
C98 C99 C100,101 C102 C103			CK73FB1H103K C90-2595-05 CK73FB1H103K CE04CW0J220M CK73FB1H223KTA	CHIP C ELECTRO CHIP C ELECTRO CHIP C		0.010UF 4.7UF 0.010UF 22UF 0.022UF	K 16WV K 6.3WV K		
C104 C106,107 C108 C109 C111		ANT PLACE OF	C90-2608-05 CC73FCH1H100D CE04CW0J101M CK73FB1H223KTA CK73FB1H223KTA	ELECTRO CHIP C ELECTRO CHIP C CHIP C		1.0UF 10PF 100UF 0.022UF 0.022UF	50WV D 6.3WV K K		
C112 C114 C115 C116 C117			CK73FB1H103K CK73FB1H223KTA CK73FB1H103K CE04CW0J470M CK73FB1H331K	CHIP C CHIP C CHIP C ELECTRO CHIP C		0.010UF 0.022UF 0.010UF 47UF 330PF	K K K 6.3WV K		
C118 C119 C120,121 C501 C502			CK73FB1E333KTA CK73FB1H102K CK73FB1H103K CK73FB1H103K C92-0005-05	CHIP C CHIP C CHIP C CHIP C ELECTRO		0.033UF 1000PF 0.010UF 0.010UF 2.2UF	K K K K 6.3WV		
C503 C504 C505 C506 C507			CK73FB1H103K CK73FB1H182K CK73FB1H103K CE04DW1A101M CK73FB1H223KTA	CHIP C CHIP C CHIP C ELECTRO CHIP C		0.010UF 1800PF 0.010UF 100UF 0.022UF	K K 10WV		
C508 C509 C510 C511 C512			CC73FCH1H070D CK73EB1E104K CK73EB1E823K C92-0005-05 CK73EB1H223K	CHIP C CHIP C CHIP C ELECTRO CHIP C		7PF 0.10UF 0.082UF 2.2UF 0.022UF	D K K 6.3WV K		
C513 C514 C515 C516 C517			CC73FCH1H101J CK73FB1H471K C92-0005-05 CK73EB1E104K C92-0004-05	CHIP C CHIP C ELECTRO CHIP C ELECTRO		100PF 470PF 2.2UF 0.10UF 1.0UF	J K 6.3WV K 16WV		
C518 C519 C520 C521 C522,523			C92-0003-05 CE04NW1A101M CK73EB1E473K CK73EB1E104K CE04NW1C100M	CHIP TAN ELECTRO CHIP C CHIP C ELECTRO		0.47UF 100UF 0.047UF 0.10UF 10UF	25WV 10WV K K 16WV		Methodogous and a second a second and a second a second and a second a

 $\begin{tabular}{lll} $E:$ Europe & $W:$ Without Europe & $P:$ Canada & $X:$ Australia \\ $K:$ U.S.A.$ and Canada & $M:$ Without Europe, U.S.A.$ and Canada \\ \end{tabular}$

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SYNTHESIZER UNIT (X14-5002-71)

Ref. No.	Address		Parts No.	Description		Re-
参照番号	位 置	Parts 新	部品番号	部品名/規格		marks 備考
C524 C525,526 C527 C528 C529			CK73EB1E473K CK73EB1E104K CK73FB1H222K CK73FB1H472K CK73EB1E104K	CHIP C 0.047UF K CHIP C 0.10UF K CHIP C 2200PF K CHIP C 4700PF K CHIP C 0.10UF K		
C530 C531,532 C534			CK73FB1E473KTA CK73EB1E104K CK73FB1H103K	CHIP C 0.047UF K CHIP C 0.10UF K CHIP C 0.010UF K		
CN1 CN2 CN3 CN4 CN5		*	E40-9249-05 E40-9085-05 E40-9083-05 E40-9079-05 E40-9077-05	FLAT CABLE CONNCTOR PIN ASSY PIN ASSY PIN ASSY PIN ASSY PIN ASSY		
CN7 CN50 CN51 CN52 CN55,56		*	E40-9075-05 E40-9104-05 E40-5452-05 E40-9081-05 E40-9072-05	PIN ASSY SOCKET FOR PIN ASSY PIN ASSY PIN ASSY PIN ASSY		
TP1 TP2 WH1 WH2	1 D	*	E40-3445-15 E23-0136-05 E30-4069-05 E31-8202-05	SOCKET FOR PIN ASSY TERMINAL CORD WITH PLUG (ANT) WIRING HARNESS		
291	2D	*	F01-1363-23	HEAT SINK		ĺ
LH1			J19-2826-05	HOLDER		
CF1 CF2 CF3 L1 L2	Š	*	L72-0716-05 L72-0715-05 L72-0721-05 L40-4791-31 L40-4791-16	CERAMIC FILTER CERAMIC FILTER CERAMIC FILTER SMALL FIXED INDUCTOR(4.7UH) SMALL FIXED INDUCTOR(4.7UH,K)	;	
L3 L4 ,5 L6 L7 L8 ,9			L40-5681-17 L40-4791-31 L40-4791-11 L40-1011-31 L40-4791-31	SMALL FIXED INDUCTOR SMALL FIXED INDUCTOR(4.7UH) SMALL FIXED INDUCTOR SMALL FIXED INDUCTOR(100UH) SMALL FIXED INDUCTOR(4.7UH)		
L14 L501 L502 T1 X1			L40-4791-31 L40-1021-14 L40-4791-31 L30-0462-15 L77-1166-05	SMALL FIXED INDUCTOR(4.7UH) SMALL FIXED INDUCTOR(1.0MH,K) SMALL FIXED INDUCTOR(4.7UH) FM IFT CRYSTAL RESONATOR		
X2 X3 X4 X5 X11		*	L77-2002-05 L78-0503-05 L77-2003-05 L78-0267-05 L78-0526-05	CRYSTAL RESONATOR(4.3320MHZ) RESONATOR (4.00MHZ) CRYSTAL RESONATOR(8.388608MHZ) RESONATOR (4.19MHZ) RESONATOR		
H P R U	2D 1D 3D 2D		N30-3005-46 N83-3005-46 N83-3006-45 N30-3014-46	PAN HEAD MACHINE SCREW PAN HEAD TAPTITE SCREW PAN HEAD TAPTITE SCREW PAN HEAD MACHINE SCREW		
R1 -4 R5 ,6 R7 R8 R9 ,10			RK73FB2A223J RK73FB2A183J RK73FB2A392J RK73FB2A222J RK73FB2A472J	CHIP R 22K J 1/10W CHIP R 18K J 1/10W CHIP R 3.9K J 1/10W CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W		

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参照番号	位 置 新	部品番号	部	品名/規	格		nation 仕 向	marks 備考
R11 ,12 R13 R14 R15 R16		RK73FB2A104J RK73FB2A152J RK73FB2A431J RK73FB2A330J RK73FB2A271J	CHIP R CHIP R CHIP R CHIP R CHIP R	100K 1.5K 430 33 270	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R17 ,18 R19 -21 R22 ,23 R24 -26 R27		RK73FB2A331J RK73FB2A102J RK73FB2A222J RK73FB2A472J RK73FB2A331J	CHIP R CHIP R CHIP R CHIP R CHIP R	330 1.0K 2.2K 4.7K 330	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R28 R29 R30 ,31 R32 ,33 R34		RK73FB2A183J RK73FB2A102J RK73FB2A103J RK73FB2A222J RK73EB2B100J	CHIP R CHIP R CHIP R CHIP R CHIP R	18K 1.0K 10K 2.2K 10	J J J J	1/10W 1/10W 1/10W 1/10W 1/8W		
R35 ,36 R37 ,38 R39 R40 R41		RK73FB2A752J RK73FB2A472J RK73FB2A912J RK73FB2A223J RK73FB2A102J	CHIP R CHIP R CHIP R CHIP R CHIP R	7.5K 4.7K 9.1K 22K 1.0K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R42 R43 R44 R45 R47		RK73FB2A222J RK73FB2A332J RK73FB2A272J RK73FB2A331J RK73FB2A432J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 3.3K 2.7K 330 4.3K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R48 R50 R51 R52 R54		RK73FB2A153J RK73FB2A113J RK73FB2A562J RK73FB2A223J RK73FB2A470J	CHIP R CHIP R CHIP R CHIP R CHIP R	15K 11K 5.6K 22K 47	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R55 R56 R57 ,58 R59 ,60 R61 ,62		RK73FB2A331J RK73FB2A221J R92-2030-05 R92-2034-05 RK73FB2A103J	CHIP R CHIP R CHIP R CHIP R	330 220 2.2K 10K 10K	J D D J	1/10W 1/10W 1/10W 1/10W 1/10W		
R63 R64 R65 R66 R67		RK73FB2A223J RK73FB2A104J RK73FB2A100J RK73FB2A102J RK73FB2A103J	CHIP R CHIP R CHIP R CHIP R CHIP R	22K 100K 10 1.0K 10K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R68 R69 R70 ,71 R72 R73		RK73FB2A223J RK73FB2A473J RK73FB2A223J RK73FB2A222J RK73FB2A102J	CHIP R CHIP R CHIP R CHIP R CHIP R	22K 47K 22K 2.2K 1.0K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R74 ,75 R76 R77 R78 R79		RK73FB2A103J RK73FB2A472J RK73FB2A473J RK73FB2A303J RK73FB2A823J	CHIP R CHIP R CHIP R CHIP R CHIP R	10K 4.7K 47K 30K 82K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R80 R81 ,82 R83 R84 R85		RK73EB2B101J RK73FB2A223J RK73FB2A224J RK73FB2A472J RK73FB2A304J	CHIP R CHIP R CHIP R CHIP R CHIP R	100 22K 220K 4.7K 300K	J J J J	1/8W 1/10W 1/10W 1/10W 1/10W		

 $\label{eq:continuous} \begin{array}{lll} \textbf{E}: \text{Europe} & \textbf{W}: \text{Without Europe} & \textbf{P}: \text{Canada} & \textbf{X}: \text{Australia} \\ \textbf{K}: \text{U.S.A.} \text{ and Canada} & \textbf{M}: \text{Without Europe, U.S.A.} \text{ and Canada} \\ \end{array}$

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Ref. No.	Address Ne		Description	Desti- Re
参照番号	位 置 m		部品名/規格	nation mar 仕 向 備
R86 R87 R88 R89 R90 ,91		RK73FB2A332J RK73FB2A473J RK73FB2A102J RK73FB2A100J RK73FB2A102J	CHIP R 3.3K J 1/10W CHIP R 47K J 1/10W CHIP R 1.0K J 1/10W CHIP R 10 J 1/10W CHIP R 1.0K J 1/10W	
R95 R96 R97 R98 -106 R107		RS14DB3D330J RK73FB2A222J RK73FB2A332J RK73FB2A104J R92-2117-05	FL-PROOF RS 33 J 2W CHIP R 2.2K J 1/10W CHIP R 3.3K J 1/10W CHIP R 100K J 1/10W METAL FILM RESISTOR	
R108 R109 R110 R111 R112		R92-2033-05 RK73FB2A101J RK73FB2A181J R92-2104-05 RK73FB2A222J	CHIP RD R 5.1K D 1/10W CHIP R 100 J 1/10W CHIP R 180 J 1/10W CHIP R 2.2 J 1W CHIP R 2.2K J 1/10W	
R113 R114,115 R120-123 R124-131 R132-135		R92-2104-05 RK73FB2A103J RK73FB2A184J RK73FB2A221J RK73FB2A102J	CHIP R 2.2 J 1W CHIP R 10K J 1/10W CHIP R 180K J 1/10W CHIP R 220 J 1/10W CHIP R 1.0K J 1/10W	
R136-139 R140 R141 R142 R143		RK73FB2A472J RK73FB2A154J RK73FB2A823J RK73FB2A473J RK73FB2A273J	CHIP R 4.7K J 1/10W CHIP R 150K J 1/10W CHIP R 82K J 1/10W CHIP R 47K J 1/10W CHIP R 27K J 1/10W	
R144 R145 R146 R147 R148-150		RK73FB2A102J RK73FB2A224J RK73FB2A104J RK73FB2A123J RK73FB2A103J	CHIP R 1.0K J 1/10W CHIP R 220K J 1/10W CHIP R 100K J 1/10W CHIP R 12K J 1/10W CHIP R 10K J 1/10W	
R151-155 R156,157 R158 R159-166 R167		RK73FB2A104J RK73FB2A473J RK73FB2A103J RK73FB2A101J RK73EB2B181J	CHIP R 100K J 1/10W CHIP R 47K J 1/10W CHIP R 10K J 1/10W CHIP R 100 J 1/10W CHIP R 180 J 1/8W	
R168 R169 R170 R171 R172		RK73FB2A103J RK73FB2A223J RK73FB2A472J R92-0365-05 RK73EB2B103J	CHIP R 10K J 1/10W CHIP R 22K J 1/10W CHIP R 4.7K J 1/10W CHIP R 1K J 1/2W CHIP R 10K J 1/8W	
R173-176 R177,178 R179 R180 R181,182		RK73FB2A104J RK73FB2A134J RK73FB2A103J RK73FB2A431J RK73FB2A471J	CHIP R 100K J 1/10W CHIP R 130K J 1/10W CHIP R 10K J 1/10W CHIP R 430 J 1/10W CHIP R 470 J 1/10W	
R183,184 R185,186 R187,188 R189 R191		R92-0686-05 RK73FB2A103J RK73FB2A102J RK73FB2A182J RK73FB2A104J	CHIP R 33 J 1/2W CHIP R 10K J 1/10W CHIP R 1.0K J 1/10W CHIP R 1.8K J 1/10W CHIP R 100K J 1/10W	
R193 R198,199 R200-202 R206,207 R208		RK73FB2A104J RK73FB2A102J RK73FB2A103J RK73FB2A472J RK73FB2A222J	CHIP R 100K J 1/10W CHIP R 1.0K J 1/10W CHIP R 10K J 1/10W CHIP R 4.7K J 1/10W CHIP R 2.2K J 1/10W	

 $\label{eq:condition} \begin{array}{lll} \textbf{E}: \text{Europe} & \textbf{W}: \text{Without Europe} & \textbf{P}: \text{Canada} & \textbf{X}: \text{Australia} \\ \textbf{K}: \text{U.S.A. and } \textbf{Canada} & \textbf{M}: \text{Without Europe, U.S.A. and Canada} \end{array}$

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参照番号	位 置	Parts 新	部品番号	部	品名/規	格			mark 備考
R209-211 R212-215 R216 R217,218 R219			RK73FB2A102J RK73FB2A222J RK73FB2A472J RK73FB2A222J RK73FB2A472J	CHIP R CHIP R CHIP R CHIP R CHIP R	1.0K 2.2K 4.7K 2.2K 4.7K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R220,221 R222 R223-227 R228 R229			RK73FB2A222J RK73FB2A102J RK73FB2A222J RK73FB2A472J RK73FB2A222J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 1.0K 2.2K 4.7K 2.2K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		-
R230-234 R235-238 R239-255 R256 R257,258			RK73FB2A102J RK73FB2A472J RK73FB2A222J RK73FB2A562J RK73FB2A222J	CHIP R CHIP R CHIP R CHIP R CHIP R	1.0K 4.7K 2.2K 5.6K 2.2K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R259 R260 R261 R262 R263			RK73FB2A103J RK73FB2A222J RK73FB2A102J RK73FB2A222J RK73FB2A472J	CHIP R CHIP R CHIP R CHIP R CHIP R	10K 2.2K 1.0K 2.2K 4.7K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R264-271 R272 R273-275 R276 R277,278			RK73FB2A222J RK73FB2A472J RK73FB2A222J RK73EB2B272J RK73FB2A272J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 4.7K 2.2K 2.7K 2.7K	J J J J	1/10W 1/10W 1/10W 1/8W 1/10W		
R279 R281-284 R287 R288 R290			RK73FB2A104J RK73FB2A104J RK73FB2A104J RK73FB2A473J RK73FB2A102J	CHIP R CHIP R CHIP R CHIP R CHIP R	100K 100K 100K 47K 1.0K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R291 R292 R293-295 R296 R297			RK73FB2A222J RK73EB2B220J RK73FB2A222J RK73EB2B333J RK73EB2B2B222J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 22 2.2K 33K 2.2K	J J J J	1/10W 1/8W 1/10W 1/8W 1/8W		
R299-307 R308-310 R311-316 R317 R318			RK73FB2A222J RK73EB2B222J RK73FB2A222J RK73FB2A472J RK73FB2A222J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 2.2K 2.2K 4.7K 2.2K	J J J J	1/10W 1/8W 1/10W 1/10W 1/10W		
R319-327 R329 R331 R332 R333			RK73FB2A104J RK73FB2A472J RK73FB2A471J RK73FB2A222J RK73FB2A471J	CHIP R CHIP R CHIP R CHIP R CHIP R	100K 4.7K 470 2.2K 470	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R350 R376 R378 R501 R502			RK73FB2A222J RK73FB2A104J RK73FB2A104J RK73FB2A391J RK73FB2A225J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.2K 100K 100K 390 2.2M	J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R505,506 R507 R508 R509 R510			RK73FB2A183J RK73FB2A511J RK73FB2A105J RK73FB2A332J RK73FB2A563J	CHIP R CHIP R CHIP R CHIP R CHIP R	18K 510 1.0M 3.3K 56K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		

 $\label{eq:condition} \begin{array}{lll} \textbf{E}: \text{Europe} & \textbf{W}: \text{Without Europe} & \textbf{P}: \text{Canada} & \textbf{X}: \text{Australia} \\ \textbf{K}: \text{U.S.A. and Canada} & \textbf{M}: \text{Without Europe, U.S.A. and Canada} \end{array}$

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SYNTHESIZER UNIT (X14-5002-71)

Ref. No.	Address		Parts	No.		Desci	ription			Desti-	Re-
参照番号	位 置	Parts 新		番号	部	品名	/ 規	格		nation 仕 向	mark: 備考
R511,512 R513 R515 R516 R517			RK73FB2A RK73FB2A RK73FB2A RK73FB2A RK73FB2A	100J 823J 562J	CHIP R CHIP R CHIP R CHIP R CHIP R	5.		J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R518 R519 R520 R521 R522			RK73FB2A RK73FB2A RK73FB2A RK73FB2A RK73FB2A	472J 102J 683J	CHIP R CHIP R CHIP R CHIP R CHIP R	4.	2K 7K 0K K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
R523 R524 R525,526 R527 R528			RK73FB2A; RK73FB2A; RK73FB2A; RK73FB2A; RK73FB2A;	224J 104J 823J	CHIP R CHIP R CHIP R CHIP R CHIP R	22 10 82	4K OK OK K	J J J J	1/10W 1/10W 1/10W 1/10W 1/10W		
VR1 VR2 ,3 VR11 VR12 VR13			R12-0606 R12-3685 R12-3685 R12-3103 R12-3100	-05 -05 -05	TRIMMING PO TRIMMING PO TRIMMING PO TRIM POT. TRIMMING PO	T.(1 T.(1 47	0K) 0K) K				
VR14 VR15 W8 -10 W12 W15			R12-3101 R12-3685 R92-2052 R92-2052 R92-2053	-05 -05 -05	TRIMMING PO TRIMMING PO CHIP R CHIP R CHIP R			J J J	1/10W 1/10W 1/8W		
W43 W46			R92-2052 R92-2052		CHIP R CHIP R	0		J J	1/10W 1/10W		
S2	2D		S40-1139	-05	PUSH SWITCH	H (TD	F)		į		
D1 ,2 D3 D3 D4 D5			MA8068-M MA110 1SS355 DAP202K DAN202K		ZENER DIODE DIODE DIODE DIODE DIODE						
D6 D7 D8 -11 D8 -11			DAP202K DA204K MA110 1SS355 MA8091-M		DIODE DIODE DIODE ZENER DIODE						
D13 D14 ,15 D14 ,15 D16 D17			MA8056-M MA110 1SS355 MA8110-L MA8051-M		ZENER DIODE DIODE DIODE ZENER DIODE ZENER DIODE						
D18 D19 -22 D19 -22 D23 D24			DA204K MA110 1SS355 DAP202K DAN202K		DIODE DIODE DIODE DIODE						
D25 D26 -28 D26 -28 D29 D30			DAP202K MA110 1SS355 ERA15-01 MA8062-M		DIODE DIODE DIODE DIODE ZENER DIODE						

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Ref. No.	Address New Parts		Description	Desti- nation	Re-
参照番号	位 置 新		部品名/規格	t 向	mark 備考
D31 D34 -39 D34 -39 D40 -48 D501		MA8120-M MA110 1SS355 MA8062-M MA110	ZENER DIODE DIODE DIODE ZENER DIODE DIODE		
D501 IC1 IC2 IC3 ,4 IC5	*	1SS355 LC7218M TC4W66F NJM4565MD SAA6579T	DIODE IC(PLL FREQUENCY SYNTHESIZER) IC IC(OP AMP X2) IC		
IC6 IC7 IC8 IC9 IC9	* *	LC6543H-4600 TA7291P LC3564QM-10 LH5168H1	IC CUSTOM IC IC(MOTOR DRIVER) IC IC		
IC10 IC11 IC12 IC13,14 IC15	*	TC74HC573AF M5237ML PST572FMT AN7174K SN74HC367ANS	IC(LATCH) IC(VOLTAGE REGULATOR) IC IC(AF AMP) IC		
IC16 IC17 IC51 IC52 Q1 ,2	* *	M38067M8D094FP 75004GB-864-3B4 KKC04 TA75S393F 2SC2412K	IC IC CUSTOM IC IC TRANSISTOR		
93 ,4 95 95 96 96		2SC2413K DTA124EK XDA124EK DTC124EK XDC124EK	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
97 98 ,9 910 912 912		DTA144EK 2SA1428 2SK536 DTC144EK XDC144EK	DIGITAL TRANSISTOR TRANSISTOR FET DIGITAL TRANSISTOR TRANSISTOR		
Q13 Q14 Q15 -17 Q18 Q19		2SA1037K 2SK536 2SC2412K 2SA1037K 2SC2412K	TRANSISTOR FET TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q20 Q20 Q21 Q22 -24 Q22 -24		DTC144EK XDC144EK DTA144EK DTC144EK XDC144EK	DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
925 925 926 927 927		DTA124EK XDA124EK 2SC2412K DTC144EK XDC144EK	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
928 929 930 931 ,32 931 ,32		DTB123YK 2SC2412K 2SA1408(0) DTC124EK XDC124EK	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		

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Ref. No.	Address	New Parts	Parts No.	Description	Re-
参照番号	位 置	新	部品番号	部品名/規格	marl 備 ³
Q33 Q34 Q35 Q36 Q37			2SB1370F8 DTA114EK 2SB1370F8 2SC2412K DTA114EK	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
Q38 Q38 Q39 Q40 Q41			DTC144EK XDC144EK 2SB1370F8 2SC2412K DTB123YK	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
Q42 Q42 Q43 Q44 Q48			DTC144EK XDC144EK 2SA1036K 2SC2412K DTA144EK	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
949 949 950 951 951			DTC144EK XDC144EK 2SC2412K DTC144EK XDC144EK	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR	
Q52 -55 Q52 -55 Q56 Q56 Q57			DTA124EK XDA124EK DTC124EK XDC124EK DTC144EK	DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
957 958 959 960 960			XDC144EK 2SC2412K 2SA1037K DTC124EK XDC124EK	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR	
Q61 Q61 Q62 Q63 Q64 ,65			DTA124EK XDA124EK 2SA1428 DTC114EK 2SC2412K	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR	
Q66 ,67 Q68 ,69 Q70 ,71 Q70 ,71			2SA1428 DTD123YK DTC144EK XDC144EK DTA144EK	TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
973 974 975 975 976			2SC2411K DTA144EK DTC124EK XDC124EK DTA144EK	TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
977 977 980 9502 9503			DTC144EK XDC144EK 2SC2411K DTA144EK 2SC2412K	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR	
Q505			2SC2412K	TRANSISTOR	
TU1	2 D	*	W02-1398-05	FM/AM FRONT-END	

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Ref. No.	Address		Parts No.		Description		Desti- Re-
参照番号	位 置	Parts 新	部品番号	部品	品 名 / 規	格	nation mark 仕 向 備考
			SWITCH	JNIT (X25-704	2-71)		l
294 295 D1 -13 LCD1 PL1	1E 2E 2E	*	B11-0850-04 B19-0936-04 B30-1349-05 B38-0587-05 B30-1306-05	OPTICAL DIFI LIGHTING BO LED LIQUID CRYS' LAMP	ARD Tal	.125A)	
PL2 ,3 PL4			B30-1305-05 B30-1306-05	LAMP LAMP		.125A) .125A)	
C1 C2 C3 C4 C5 ,6			CK73EB1H103K CK73EB1H681K CK73EB1H103K CK73EB1H681K CC73FCH1H220J	CHIP C CHIP C CHIP C CHIP C CHIP C	0.01UF 680PF 0.01UF 680PF 22PF	К К К К Ј	
C7 C8 C9 C10			C92-0005-05 C92-0509-05 C92-0005-05 C92-0004-05	ELECTRO TANTAL ELECTRO ELECTRO	2.2UF 10UF 2.2UF 1.0UF	6.3WV 6.3WV 6.3WV 16WV	
296 CN1	2E		E29-1399-04 E59-0809-05	CONDUCTIVE RECTANGULAR			
297	2E		J19-4492-13	HOLDER			
X1			L78-0505-05	RESONATOR			
R1 -4 R5 R6 ,7 R8 ,9 R10 ,11			RK73FB2A102J RK73EB2B331J RK73EB2B471J RK73EB2B513J RK73FB2A104J	CHIP R CHIP R CHIP R CHIP R CHIP R	1.0K 330 470 51K 100K	J 1/10W J 1/8W J 1/8W J 1/8W J 1/10W	
R12 R13 ,14 R15 -19 R20 ,21 R22 -24			RK73EB2B104J RK73FB2A104J RK73FB2A102J RK73EB2B102J RK73FB2A102J	CHIP R CHIP R CHIP R CHIP R CHIP R	100K 100K 1.0K 1.0K 1.0K	J 1/8W J 1/10W J 1/10W J 1/8W J 1/10W	
R25 R26 R27 R28 R29			RK73EB2B103J RK73FB2A103J RK73FB2A472J RK73FB2A101J RK73EB2B472J	CHIP R CHIP R CHIP R CHIP R CHIP R	10K 10K 4.7K 100 4.7K	J 1/8W J 1/10W J 1/10W J 1/10W J 1/8W	
R30 R31 -33 R34 R35 R36			RK73EB2B471J RK73EB2B331J RK73EB2B471J RK73EB2B331J RK73EB2B471J	CHIP R CHIP R CHIP R CHIP R CHIP R	470 330 470 330 470	J 1/8W J 1/8W J 1/8W J 1/8W J 1/8W	
R39 R40 -42 R43			RK73FB2A102J RK73EB2B102J RK73FB2A102J	CHIP R CHIP R CHIP R	1.0K 1.0K 1.0K	J 1/10W J 1/8W J 1/10W	
S1 ,2 S3 ,4 S5 -10 S11 S13 -21			S40-1601-15 S40-1606-05 S40-1601-15 S40-1606-05 S40-1606-05	PUSH SWITCH PUSH SWITCH PUSH SWITCH PUSH SWITCH PUSH SWITCH			
S22 -25 S26		*	S40-1601-15 S70-0814-05	PUSH SWITCH TACT SWITCH			

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SWITCH UNIT (X25-7042-71)

Teile ohne Parts No. werden nicht geliefert.			ric generer c.	SWITCH UNIT (X25-7042-71			
Ref. N	o. Address	New Parts	Parts No.	Description		Desti- nation	Re-
参照番	号 位 置		部品番号	部品名/規	格		備考
D14 -2: D24 -2: IC1 IC2 IC3			MA8062-M MA8062-M 75004GB-863-3B4 PST572DMT RS-21	ZENER DIODE ZENER DIODE IC IC(SYSTEM RESET) IC			
IC4 ,5 Q1 Q2 Q2			LC7582E DTA143XK DTC144EK XDC144EK	IC(LCD DRIVER) DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR			
			DAUGHTER (JNIT (X89-2002-71)			
C1 C2 C3 C4 -6 C7 -1			CK73EB1H104K CK73EB1H683K C92-0006-05 CK73FB1H223KTA C93-1026-05	CHIP C 0.10UF CHIP C 0.068UF TANTAL 3.3UF CHIP C 0.022UF CERAMIC 0.33UF	K K 4WV K 16WV		
CN1 CN2 CN3 CN4 CN5		*	E58-0820-05 E40-9198-05 E40-9289-05 E40-9147-05 E40-9145-05	RECTANGULAR RECEPTACI PIN ASSY PIN ASSY PIN ASSY PIN ASSY	E		
CN6 CN7		*	E40-3268-05 E40-9091-05	PIN ASSY SOCKET FOR PIN ASSY			
R1 R2 R3 R4 R5		7 4 4	R92-0366-05 RK73EB2B223J R92-0365-05 RK73FB2A472J RK73FB2A103J	CHIP R 560 CHIP R 22K CHIP R 1K CHIP R 4.7K CHIP R 10K	J 1W J 1/8W J 1/2W J 1/10W J 1/10W		
R8 -15	5		RK73EB2B2R2J	CHIP R 2.2	J 1/8W		
D1 -3 D5 D5 Q1 Q1			ERA15-01Y1 MA110 1SS355 DTA124EK XDA124EK	DIODE DIODE DIODE DIGITAL TRANSISTOR TRANSISTOR			
Q2 Q3 Q4			2SA1037K 2SB822F DTC114EK	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR			
	,		MECHANISM	ASSY (X92-1710-06)			
3 5	2B 1A,2A		A11-0801-52 A11-0858-04	SUB CHASSIS CALKING A			
7	2A	*	B09-0504-24	CAP			
8 14 16 21 23	3A 1A 1B 1B 2A		D01-0601-13 D10-2505-13 D10-2507-23 D10-2512-13 D10-2514-13	FLYWHEEL ASSY ARM ASSY ARM ASSY ARM ARM			
24 26 27 28 30	3A 3B 2B 1B 1B		D10-2515-24 D10-2517-53 D10-2518-33 D10-2519-04 D10-2521-04	ARM ASSY LEVER LEVER ARM ASSY LEVER			
31 34	2A 3A		D13-1001-04 D13-1004-24	GEAR ASSY GEAR ASSY			

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MECHANISM ASSY (X92-1710-06)

Ref. No.	Address	New Parts No.	Description	Desti- Re-
参照番号	位 置	新部品番号	部品名/規格	nation mark 仕 向 備考
37 38 40 41 42	2B 1B 1B 1B 1B	D13-1007-24 D13-1008-54 D13-1010-14 D13-1011-04 D13-1012-04	GEAR GEAR ASSY GEAR GEAR GEAR	
43 44 45 46 48	18 3A 2B 1B	D13-1013-43 D13-1015-24 D13-1016-23 D14-0601-13 D14-0603-13	GEAR GEAR GEAR PINCH ROLLER ASSY PINCH ROLLER ASSY	
49 50 53 54 55	2B 3B 2A 3B 3A	D14-0604-04 D14-0605-04 D15-0901-14 D15-0902-34 D16-0601-04	RØLLER RØLLER PULLEY PULLEY BELT	
72	2A	D21-2018-14	SHAFT ASSY	
73	3B	F10-1716-24	SHIELDING PLATE	
80 83 84 85 86	2A 3A 1B 2A 2A	G01-2502-14 G01-2505-24 G01-2506-14 G01-2507-14 G01-2508-24	COMPRESSION SPRING EXTENSION SPRING EXTENSION SPRING TORSION COIL SPRING TORSION COIL SPRING	
87 88 89 91 92	1B 2B 1B 1A 1B	G01-2509-14 G01-2510-24 G01-2511-24 G09-2001-24 G09-2002-24	TORSION COIL SPRING TORSION COIL SPRING EXTENSION SPRING FORMED WIRE FORMED WIRE	
103 105	2B 1 A	J19-4452-03 J19-4417-24	BRACKET HOLDER ASSY	
B C D E F	2A 1A 2B 1A 2B	N39-1770-46 N09-4005-05 N09-4006-15 N09-4061-05 N38-2020-46	PAN HEAD MACHIN SCREW MACHINE SCREW (M2) MACHINE SCREW (M1.7) MACHINE SCREW (M2X 4) PAN HEAD MACHIN SCREW	
G H J K L	3A 1B,2B 2A,2B 2A,3B 1B,2A	N39-2022-46 N35-2003-46 N86-2004-46 N19-2003-04 N19-2023-04	PAN HEAD MACHIN SCREW BINDING HEAD MACHINE SCREW BINDING HEAD TAPTITE SCREW FLAT WASHER FLAT WASHER	
M N P Q	3B 2A 2B 2A,3A 2A	N19-2005-04 N19-2006-04 N19-2008-04 N19-0373-04 N29-0208-04	FLAT WASHER FLAT WASHER FLAT WASHER FLAT WASHER RETAINING RING (3)	
T U W	1B 3A 1A	N29-0205-04 N29-0501-05 N19-1096-04	RETAINING RING (1.5) RETAINING RING FLAT WASHER	
HD1 M1 M2	1 A 2 A 2 B	T31-0212-05 T42-0702-25 T42-0704-15	PLAYBACK HEAD DC MOTOR DC MOTOR	
M1	2A	T42-0702-25	DC MOTOR	

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SPECIFICATIONS

FM tuner section

Usable sensitivity Stereo sensitivity (S/N=46c Frequency response (±4.5c	
Frequency range Usable sensitivity	
LW tuner section	
Frequency range	153kHz~281kHz
Usable sensitivity	
Cassette deck section	า
Tape speed	4.76cm/sec.
Wow & flutter (WRMS)	
Fast winding time	

-6dB)
30Hz~18kHz (120µs)
30Hz~20kHz (70µs)
40dB
Dolby B.C NR OFF: 55dB
Dolby B NR ON : 65dB
Dolby C NR ON : 72dB
ax power output

20Wx4 into 4Ω , 1kHz at 10% THD 15Wx4 into 4Ω , at 1kHz at 1% THD

Treble: 10kHz±10dB

General

Operating voltage	14.4V (11~16V allowable)
Current consumption	7.5A at rated power
Dimensions (WxHxD)	188x58x175mm
Installation size	182x52x154mm
Weight	1500g

Tone actionBass: 100Hz±10dB

Preout level/impedance800mV (max)/180 Ω

Note: KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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Bolivia, 239-08020 Barcelona, Spain

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Unit 3712-3724, Level 37 Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T. Hong Kong KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane #07-00, Singapore, 1334